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The Magazine for Kaypro Users
May/June 1984

Writing and the Computer

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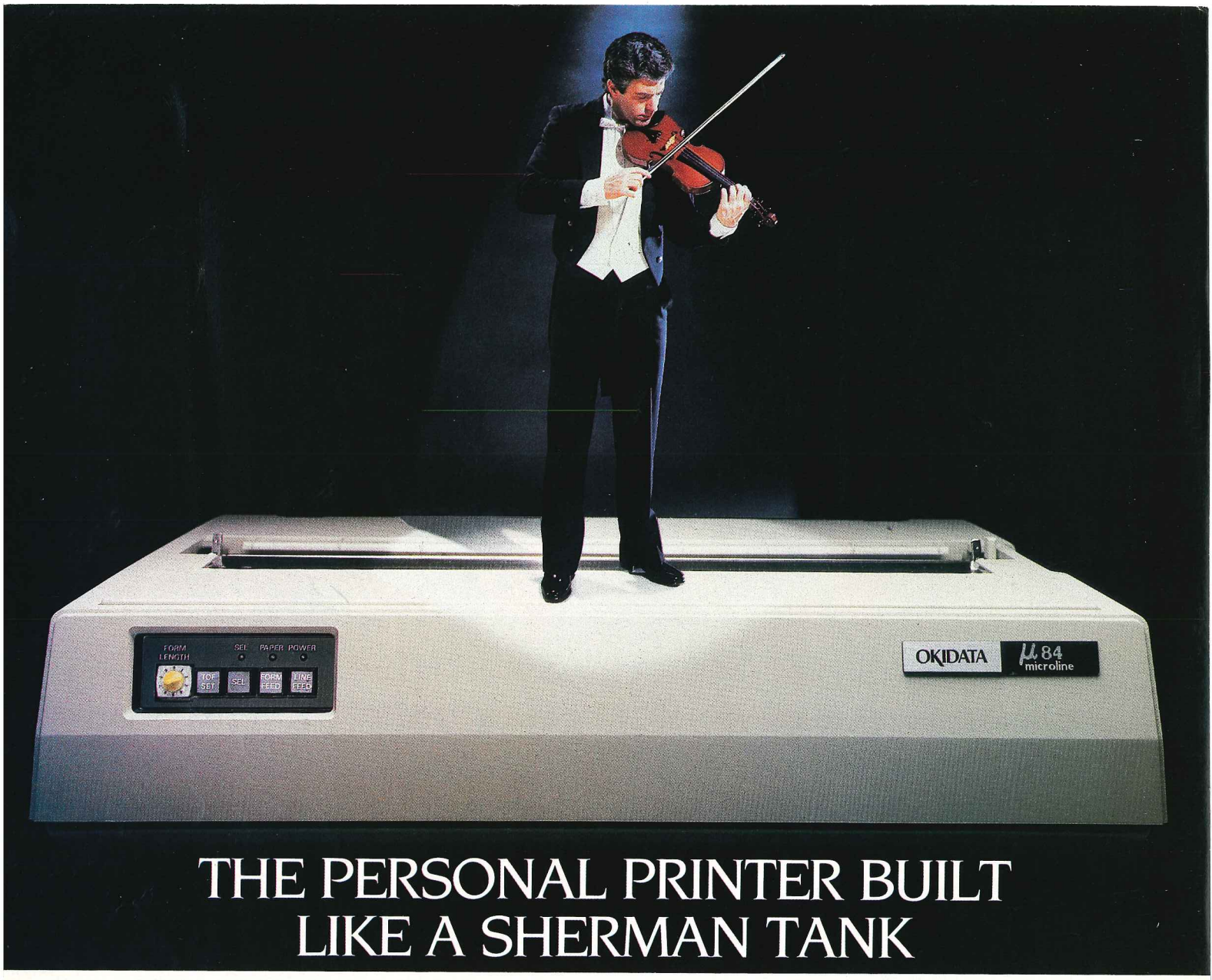

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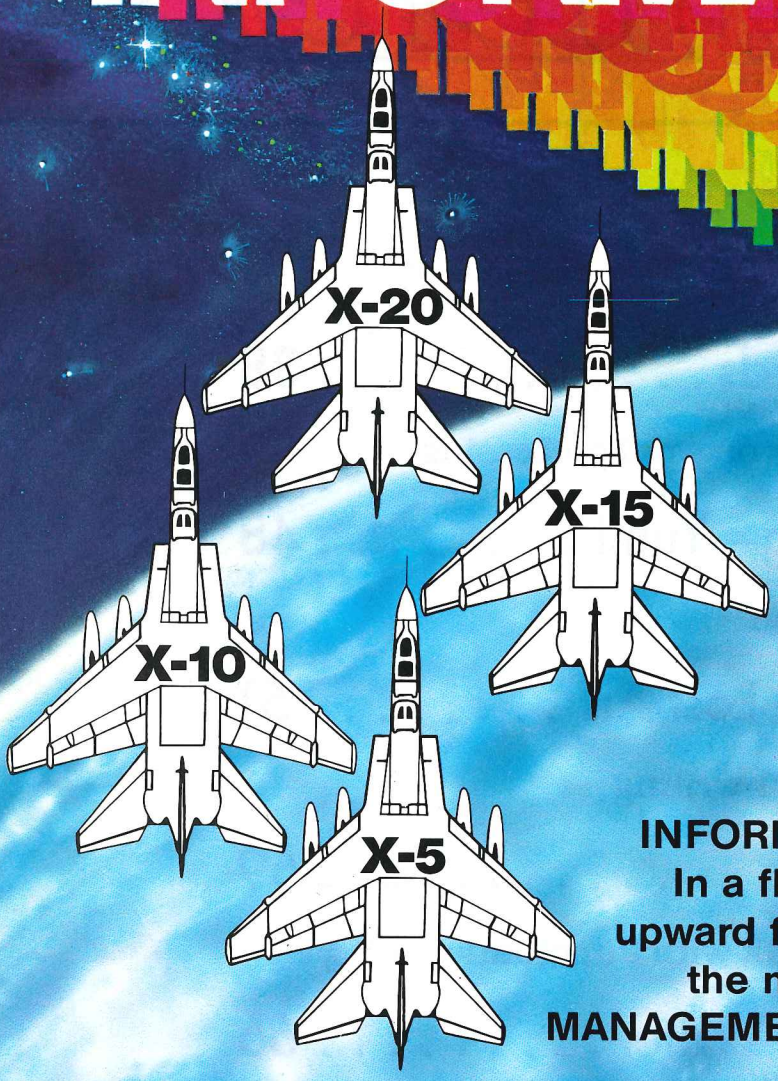

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PROFILES is published bimonthly by Kaypro Corporation, Solana Beach, CA.

Registered owners of Kaypro computers, within the United States, are entitled to a six-issue complimentary subscription. If owners are not receiving the magazine, they should send their name, address, and the serial number of their machines to the address below.

Subscriptions within the United States are available for $12.00 per year to people who are not registered Kaypro owners.

Subscription orders and change of address notifications should be mailed to *PROFILES* Circulation, P.O. Box N, Del Mar, CA 92014. Checks must be made payable to Kaypro Corporation.

For Canadian and international subscriptions, send all inquiries to: Kaypro International, P.O. Box N, Del Mar, CA 92014.

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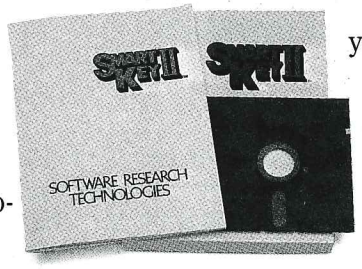

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A note about subscriptions

How to subscribe

Subscriptions to *PROFILES* are available to everyone who purchases a Kaypro computer, or already owns one. The cost of six issues is included in the price of your computer when bought in the United States.

For those in the United States, the situation is fairly straight-forward: send in your warranty card. We have counted heavily on the return of warranty cards to establish our mailing list. Developing the list has turned out to trickier than we had anticipated—roughly a third of our users aren't getting the magazine because *something* went wrong. If you've sent in your card, you should be receiving the magazine.

When things go wrong

If you've sent in your card and *aren't* receiving the magazine, please call or write to our Editorial Offices. (Our subscription number is 619-481-4353.) Remember to check the back of your machine for the serial number—we need that number to credit your account.

Address changes can also be handled at that number, but remember that calling into our offices will *not* register your warranty. You still have to send in your warranty card.

Magazine time

Contrary to what some dealers and users believe, we do not have psychic subscription agents scattered throughout the world. There is no earthly way for us to know which copy of the magazine was packed with your computer. *Your subscription begins when you get your first issue in the mail, and has nothing to do with the complimentary issue packed with your machine.*

Also, it takes about two months for you to get your first issue of *PROFILES*.

Back issues

The requests for back issues have been overwhelming. Indeed, we are now **SOLD OUT** of the first four issues. We're sorry, but no amount of wheedling, pleading or voodoo is going to conjure up extra copies of the first four issues.

If interested in the other available issues, check with an authorized Kaypro dealer. Call 800-447-4700 to find the dealer nearest you. If that isn't successful, *PROFILES* will send them out while supplies last, for $3.00 an issue (including postage and handling). Send your name and address to our Editorial Offices, 533 Stevens Avenue, Solana Beach, CA 92075 Attention: Back issues. Enclose a check or money order (no cash, please) made payable to Kaypro Corporation. Allow two to four weeks for delivery.

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MANNESMANN TALLY

Letters

While Kaypro Corporation finances this magazine, it does not necessarily endorse or even agree with the editorial content. Unless there is a specific note to the contrary, all opinions expressed in this magazine are those of the staff and/or individual writers involved.

A truly hard disk

I'd like to share with you an incident that answers the critics' misgivings about the sturdiness of the Kaypro 10.

I was driving home from work on a San Francisco freeway, with my 10 on the front seat next to me, when the cars in front of me stopped practically in their tracks. I slammed on the brakes. The 10 took off as if weightless, and only the dashboard, which has gashes to prove it, kept the computer from going through the windshield. It finally ended on the floor, upside down.

My shaking was probably due as much to the fact that I hadn't backed up the hard disk for a couple of weeks as to the close shave on the freeway. As soon as I got home, I set up the computer. I was relieved and *shocked* to discover that the 10 survived the pounding, and continues to serve me well in my accounting work and writing of laudatory letters to computer magazines.

Come to think of it, it may be helpful to remind Kaypro owners that, given the value of the machine and the data therein, it's sensible to strap it in when it's riding with you.

Phil Patiris
San Francisco, California

First class treatment

I found out that my Kaypro is really something special.

While flying from Tucson to Florida recently, I learned to my embarrassment that the Kaypro was just a little too fat to fit under the airline seat. When I explained the problem to the flight attendant, she said the plane was crowded and there might be no place to put it. Finally, she returned with, "there is an empty seat in first class— we could put it under that."

"I have a different idea," I proposed. "Why not leave the computer here and I can take the empty seat in first class."

"Not possible," she answered firmly. "But we'll be glad to put your computer there!"

So I sat in my seat behind the wing, while my Kaypro rode first class all the way to Florida.

David H. Levy
Tuscon, Arizona

Delay loop

In the January/February issue you started a series called "Understanding S-BASIC Data Files." Thrill upon thrill, I had tried for hours to use and understand data files. I even wrote the author (of S-BASIC) and asked him to send some examples . . . any examples. Just go to his files and copy anything . . . No reply!

The article calmed my soul . . . at last some information.

With great anticipation I waited for my next *PROFILES*, and guess what, no more data files. No more series.

May I quote the last four words of the first article—"but that's next issue's topic."

This faithful and patient Kaypro owner/user is faithfully and patiently waiting and waiting and waiting . . .

Richard H. Zbinden
Klamath Falls, Oregon

As the unofficial S-BASIC Editor, I am all too often forced to postpone writing articles (and correspondence) in order to deal with matters affecting the entire magazine. In this case, events conspired to make issue number 5 smaller than originally planned, and the second installment in the series on S-BASIC data files was postponed until this issue. Next issue will see an increase in the size of the magazine, and the inclusion of two(!) S-BASIC articles.

While your letter indicates you wrote to Gilbert Ohnysty for information, if your original letter had been sent to me it might have easily wound up in one of the several piles on my desk. Failure to reply to some of the letters we get is a mixture of good intentions and Crisis Man-

(continued)

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The Kaypro Users' Group was established at the same time the Kaypro computer was being introduced. That was back in the autumn of 1982. Since then we have both grown and matured. **KUG** now has members in all 50 states and countries half-way around the globe. Although **KUG** is an entirely independent organization, we rely on the information that is passed on to our members from the Kaypro Corporation.

That information, as well as information from members and **KUG** staff, is presented in our bi-monthly **"KUGRAM®"** newsletter.

The articles and programs in **KUGRAM®** are aimed at the first time user and the "pro." We have received welcoming comments from both. Our article (tutorial) on CP/M titled **CP/M STUFF**, is regarded as a fine learning experience in working with the Kaypro operating system. Other columns include **BOX 100** (letters from members), **CHAPTERS** (new chapters from around the world), **IN RESPONSE** (answers to many of the questions we receive), **VENDORS** (suppliers of Kaypro compatible products) and **REVIEWS** of software and hardware for the Kaypro.

KUG also operates its own Bulletin Board system. You can meet and communicate with other **KUGGERS** through this electronic medium. The **KUG** library has an excellent public domain modem program. In fact our disk library has many other categories such as **GAMES** (Adventure, Pac-Man, Eliza and more), **UTILITIES** (programs to make your file handling easier), **HELPS** (helpful hints on **MBASIC, C/PM**, and other languages) plus others that are constantly being added and updated.

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LETTERS
(continued)

agement, not deliberate rudeness. While I make a point of reading the mail that comes my way, (and sometimes acting on the reader's suggestions,) the sheer volume alone precludes personal replies.

For those who have technical problems demanding solutions faster than the leisurely pace of Q & A *and* Technical Forum, *I would suggest writing (or calling) Kaypro Technical Support. In your case, I would suggest the nearest User Group as a source of example S-BASIC programs. —TS.*

Dangerous perceptions

I wish that I didn't have to use the Letters column to be critical of a Senior Editor (thereby diminishing the chances of this appearing in print), but I am afraid that I will have to take issue strongly with Terian Tyre's *Ms. Perceptions* column that appeared in the January/February 1984 issue. I feel that the first part of the article (concerning biological issues) is dangerously misleading, while the second part (socialization issues) is self-contradictory.

In the first section, Tyre reports "evidence" from psychobiologists that women are more adept at left brain tasks, which involve step-by-step thinking and language skills. The conclusion, though not specifically stated, is that "left brain" women "make better programmers than men."

The above argument is dangerous for several reasons. First, as Tyre points out, the evidence is controversial. As a matter of editorial policy, one should exclude controversial scientific theories unless one has the space and expertise to explain the matter fully to the readers. Secondly, the whole matter of innate or genetic dispositions has the potential for misuse (e.g. as material for bigotry or sexism). One must be very careful in presenting the material, and careful to qualify it with the constant reminder that such findings, even if non-controversial, should never be generalized to every member of either sex.

An interesting example of the danger in Ms. Tyre's article is that of Dr. Tadanobu Tsunoda, who in a best-selling book (in Japan) makes the case that since Japanese are left-hemisphere oriented by genetic inheritance, they should not even attempt to learn foreign "right-brained" languages. (If they are truly left-hemisphere oriented, does that make them better programmers? The evidence does not seem to support it.) In fact, left brain/right brain "evidence" has already made its way into many forms of bigotry and sexism (some Japanese also use the genetic disposition argument to justify the strong sexist corporate bias).

In the second part of Tyre's article, the claim is made from a standpoint of socialization that "Women are often educated to pay more attention to detail . . ." However, it is this very form of sexist socialization, where women are brainwashed into being wives and mothers, that would be the first to go (or be attenuated) in a truly non-sexist education. You simply can't have it both ways.

Finally, let us take Ms. Tyre's point one step further. By her arguments, we should have women writing the user interface, and men writing graphics packages (the right brain involves spatial orientation). In fact, we simply do not know what talents are required to write good programs (or else why would there be so many cruddy ones),

(continued)

and to claim that socialization, or genetics makes for a good programmer is debasing to both the people and the profession. A proper computer science education and proper project management, combined with a certain pride in workmanship, are the only things that are germane. One's gender is immaterial.

Thomas Litant
Tokyo, Japan

Your point about the danger of bringing up controversial theories without the space to explain them is well-taken. I will avoid that in the future.

Secondly, I didn't specifically state that "women make better programmers than men" on purpose. I don't think it's true. My intention is to raise questions in the minds of those who adhere to a superficial view of things. Seeing more men than women in the field leads some people to believe men excel at that job. My purpose was to highlight material that conflicts with that view. —TT

New policy

I purchased a copy of PROFILES at a local computer store. I read that "subscriptions within the United States are available at no charge to registered owners ... *and at $12.00 per year for all others.* While I certainly believe that your publication is worth every penny of its reasonable subscription price, I nevertheless feel that we, here in Great White North are being discriminated against.

Surely you would not wish to deny your Canadian computer brethren an opportunity to read your excellent publication!

Elliot Goldstein
Vancouver, British Columbia
Canada

The original plan for Canadian distribution included our Great White North subscribers in normal U.S. bulk mailings. As things stand now, all foreign subscriptions are being handled through Kaypro International and the local dealers. Check the notice elsewhere in this issue for more details.

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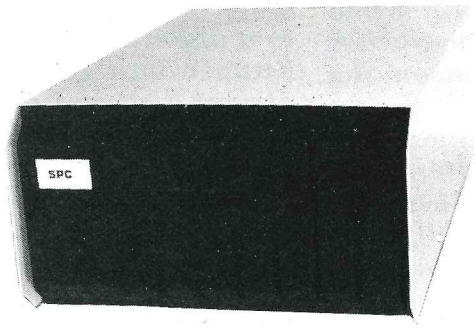

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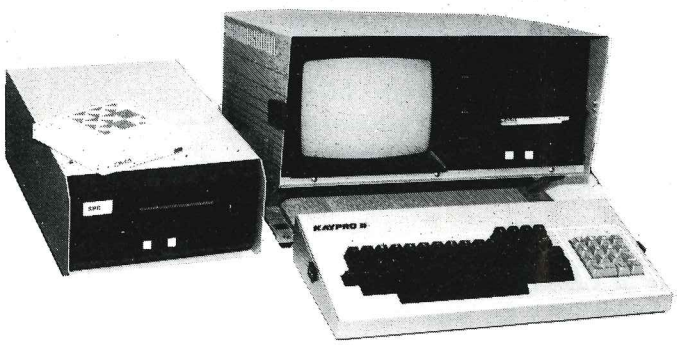

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Q & A

We welcome and read all your letters. We pick those we find of general interest to print and respond to in the magazine. We will usually do some editing of the letters we print, and we simply can't respond personally to individual letters.

For those questions which require a personal or immediate reply, you can do what we would: call Kaypro Technical Support at (619) 481-3920.

X-Rays considered

Is there any risk of damaging my Kaypro II by carrying it through airport security devices?

Barry J. Cerf, PhD
New York, New York

While it is possible to erase the EPROMs used in Kaypros with prolonged exposure to X-rays, the devices used at airports are not powerful enough to make this a problem. So much for the machine itself.

Floppy disks should always be kept away from sources of X-rays and magnetic fields. This should not be a major problem; airport personnel are becoming quite accustomed to inspecting diskette boxes by hand.

Power glitches

Instructions for the Kaypro 2 indicate that the power switch should be turned on before a diskette is inserted, and the procedure reversed when shutting down. A user of an IBM PC and an Apple has informed me that the drive might damage the diskette and that power should be turned on after inserting the diskette. Is the Kaypro different, or is one of these procedures incorrect?

Larry Gardner
Columbus, Ohio

While that procedure might be necessary for the Apple, the procedure listed in your manual is correct for the Kaypro. For the first few milliseconds after power is turned on, the electronic circuits inside the Kaypro and the drives are stabilizing. If a diskette is inserted during power up, it is possible (depending on the design of the drive) for the initial surge of power to find its way into the recording heads and zap some data on the diskette.

The same logic indicates removing the diskette before turning off power, because some drive circuits will "die" before others. Indeed, the rule of never turning a computer off with diskettes in the drive can be traced back to the old days of 8" machines.

As far as the drive damaging the diskette, I've never heard of any problems with inserting a diskette while the motor is running. Indeed, this is one diskette manufacturer's recommended procedure. —TS

Handling .FIN files

If you're using Perfect Writer and have access to bulletin boards, you might want to look for the public domain programs DUV-77 and DEFIN.TXT. DEFIN.TXT, by Richard Dedic and Dr. Willem Meijer, both of the University of Kentucky, will show you how to use DUV-77 to turn a .FIN file back into an text file. Handy, if you've lost your original.—AWB

Compatible?

Will *any* CP/M-based program run on the Kaypro?

John E. Marrdocco
Edgewater, Florida

Point blank: no. Even if a program has been "downloaded" to a diskette format that your Kaypro can read, there is always a chance the program has been customized for some feature of another machine. An obvious example would be the programs written for the Osborne I that expect a video display that scrolls horizontally.

It is possible to write good programs that can be used on any CP/M-80 machine (for example, PIP) but this requires a far-sighted design from the programmer. The best way to find out if a specific program will work on a Kaypro is to call the manufacturer and ask. □

Why are the RCPMs going private?

Bulletin board users may be surprised to discover some RCPMs now charge a fee.

by Steve Sanders

One of the most asked questions on my Tampa Bay Bandit Board is "Why are you now charging a fee?" The problem with open systems is and always has been that anyone with a modem, regardless of computer type, can use it. In the past this was no problem as only serious or at least semi-serious computerists had modems or knew what to do with them.

The recent trend toward telecomputing and lowered prices of modems has given rise to a real traffic jam on most of the popular systems around the country. My steady users were having great difficulty in logging on because some non-CP/M computerist, on a non-CP/M machine, was tying up the system for hours doing no more than TYPEing everything in sight. Even worse is the user who for some unknown reason either doesn't know or doesn't care that there is more than a message system available.

To make the system accessible means to limit the number of people who can use it. It also gives the system operator a way to raise needed capital for things like the average month's phone bill—usually $250.00 even with MCI. After all, all those new programs do not just magically appear without considerable cost—I have to modem them just the same as you do.

And let's not forget the cost of a computer, modem and dedicated phone line. My system is a Kaypro 10 with a Hayes 1200 Smartmodem meaning my equipment costs alone are over $3,500.00. The only time I get to use it is when I update the files. This adds up to a grand total of about 45 minutes a day; the members use it the other 23 hours and 15 minutes.

The fee I charge ($25.00) is roughly equivalent to what you would spend using CompuServe for about two hours and on my system, it's good for a year. The number of really good public domain programs is staggering and it grows daily.

Jud Newell, who is the System Operator for the Toronto Systems RCPMs, is really the pioneer in the private RCPM concept. He started with one system in Toronto, and vowed to start another system when it exceeded 200 members. He now has brought system #4 on-line and doesn't know where it will stop.

I am also near the 200 mark, and have plans for using my Kaypro 2 (which is now a 4) with a 16mb Delphi hard disk for system #2. I'm also thinking about a system based around the 8088 and carrying IBM-PC and MS-DOS as well. There will be a lot of dual processor Kaypros on the market this year and I would like to offer them some good public domain software as well.

I have always believed in supporting systems that supported me, either by uploading good programs, or at least by offering some monetary remuneration. I mean, no one has ever said that an RCPM had to be free. Some people leave nasty comments when signing-off after being refused entry, but then again some folks used to leave nasty comments when they were let in.

Just take a second to see our (the sysop's) side of this story, and hopefully understand our dilemma. We are just trying to continue to offer the same service as before, making sure those who really use the board can get into the system. □

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Foreword

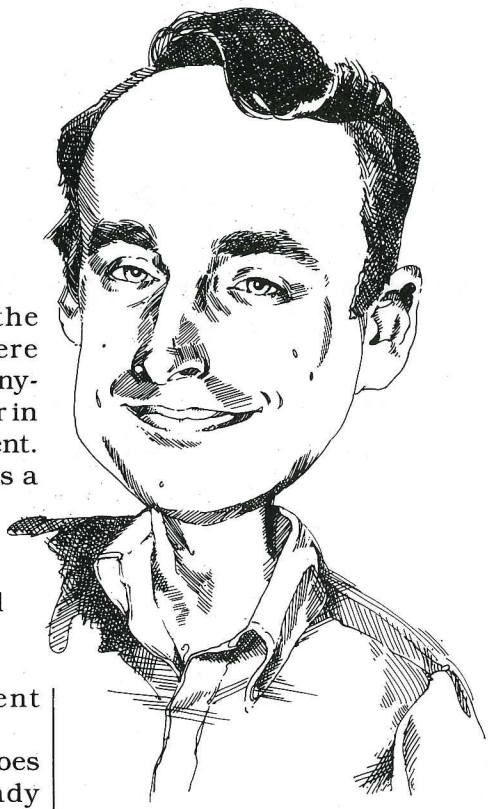

ILLUSTRATION BY JOYCE KITCHELL

by Tyler Sperry

Recently I received a letter from a reader who was disappointed with the magazine. This is not that unusual: many people write in to tell us how *PROFILES* could be better. Unlike the usual complaints, however, this letter was concerned with the editorial tone rather than the content. Or, as Roger Smed put it himself:

Dear Mr. Sperry,

I've been enjoying PROFILES from the very beginning. But now, after finishing the March/April issue, I feel a bit depressed.

Why the depression?

I'm beginning to feel that I shouldn't be happy with my Perfect Writer, Filer and Calc software, nor with much of the other bundled software I received. The feeling isn't the result of the software doing less than everything I want and asked it to do, it's because the undertone of PROFILES is telling me I shouldn't be happy with the software I'm using.

Roger then went on to list several examples of what he was talking about and concluded:

You are doing a great job with PROFILES, but keep in mind that you have lots of readers who really like what they are working with and don't want to read that they should not be happy with it.

Well, we've received dozens of letters patting us on the back for our editorial independence from Kaypro Corporation, and it was about time for another point of view to surface. Since this was the first complaint, and the actual examples raised were minor, I hadn't planned to do anything more than print the letter in the normal Letters department. But, as this is written, there is a new software bundle for the Kaypro computers featuring MicroPro instead of Perfect software, and it might just be a good idea to restate the magazine's policies in light of the recent changes.

First of all, this magazine goes to readers who have already bought a Kaypro computer. It therefore seems reasonable to assume we can stop the sales pitch in the pages of the magazine, and concentrate instead on helping our readers get the most out of their purchase.

The Technical Forum and other departments deal with the letters that come in. We do not throw away all of the positive reports we get about Perfect Software; it is just a curious fact that most of those glowing letters also mention this one little problem that they haven't been able to get around.

Concerning the future of the magazine's emphasis: owners of Perfect Software shouldn't worry. We will continue to run articles like Kristin Farry's *Printing With Perfect Writer* (in this issue) as long as there is a demand for them. And barring a mass conversion to WordStar—which seems unlikely considering the enthusiasm of the most Perfect users—we will continue to run articles on the Perfect line.

Old issues

When we started *PROFILES*, no one knew how popular the magazine would prove to be. It wasn't until recently, when we began to get complaints about the lack of back issues, that we began to plan for the extra demand. How can we help those who want the back issues already out of print?

The good news: we have settled on an approach that should help our readers without costing an arm and a leg. We are putting together a collection of the best from the first year of *PROFILES*. Not only will most of the previous editorial material be collected and updated, but we will also include some new articles to update the old topics. (If you have a favorite article that you think should be included, drop us a line.)

And the now bad news: this yearbook involves all the production hassles of a normal book, and will take as long to produce. Therefore, don't expect the book in your stores tomorrow, or even next Tuesday. We'll print more details as the book becomes more real. □

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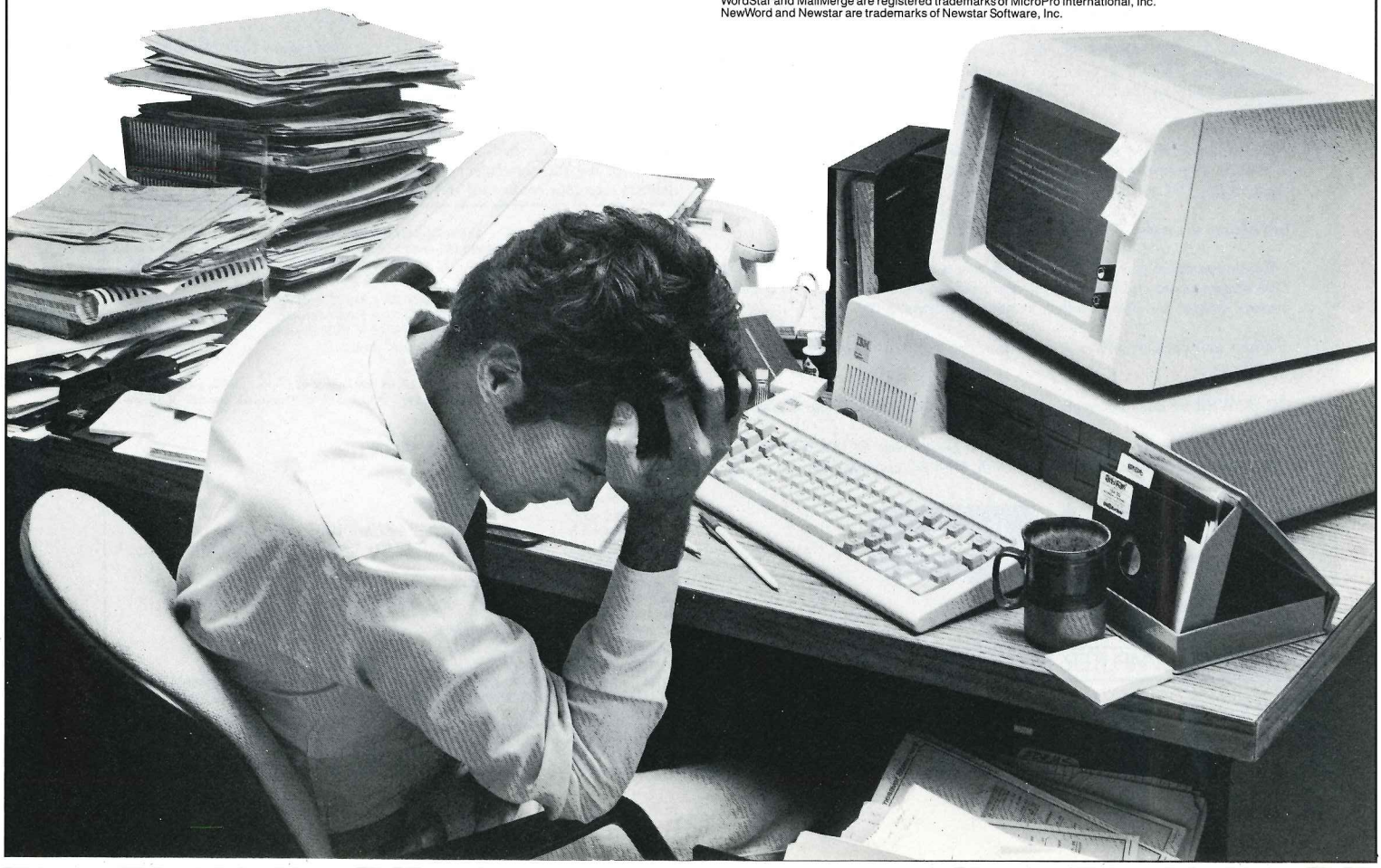

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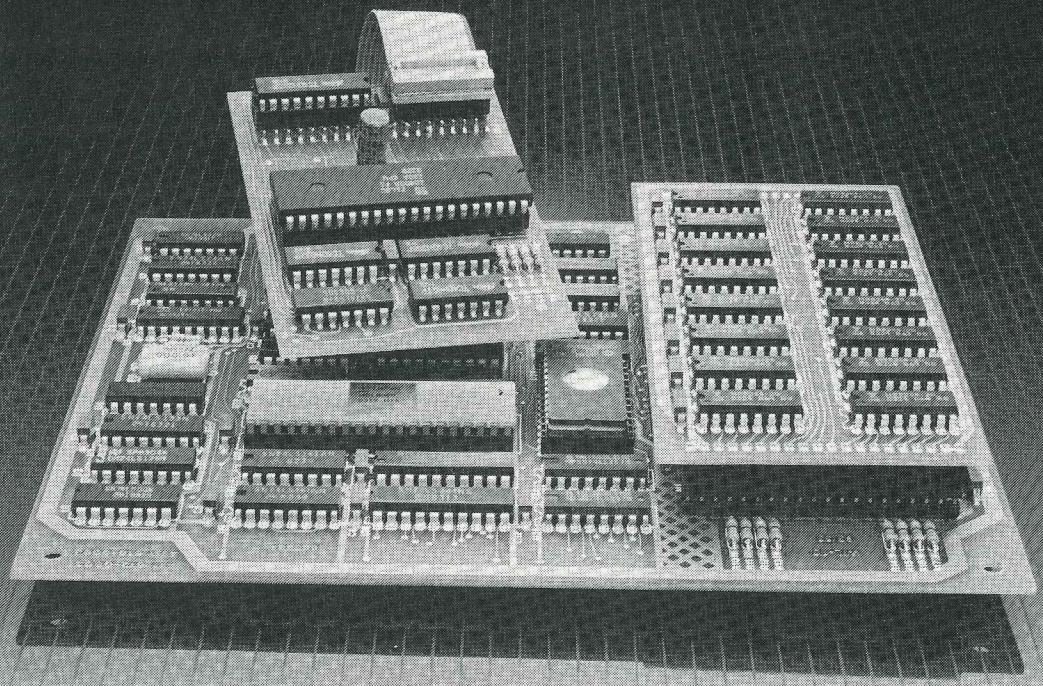

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The cottage computerist

High-tech writing—image vs. reality

ILLUSTRATION BY JOYCE KITCHELL

by David Thompson

Writing about computers would seem to be a natural occupation for us cottage computerists. After all, isn't that the way many talented (but otherwise normal) people have managed to live where they want (away from cities) and still work in the high technology world?

This image of independent writers is not uncommon. And, in fact, a lucky few of us really do get to live that dream in small town America. Many more writers, however, live in suburban tracts, paying their weekly dues of 40 hours at a straight job before they can sit down at the keyboard.

Writing appears an easy job, one not requiring much capital outlay. But whenever something looks easy and cheap, it usually turns out that it doesn't pay very well (or else it isn't really so easy or cheap).

Assume the worst possible case and you'll be pretty close to reality. Writing usually doesn't pay well, it's not all that easy, and the investment can be substantial if you count your time along with the dollars. Plus, you might not even have the option of living where you please. You might (heaven forbid) be locked as tightly into the big city, big company trip as any lowly employee.

What pays and what doesn't

Writing magazine articles on speculation doesn't pay. Sure, your writer's guild magazine and your writer's market annual spend a lot of time with tips on how to get your article accepted by an editor. However, once the thing's been published, what do you get?

You get a lot of satisfaction (after all, you're a published author), you get some status at work (perhaps even a pay increase), and you get 50 cents per hour for your time (a high estimate).

If you're writing articles or columns assigned by a magazine editor, it's usually better but still not enough to feed a family. However, if you are writing for a corporation, things can be quite different.

Let's say that XYZ software company is selling a Pascal compiler that has a dynamite debugger. XYZ company contacts an editor (of a publication they advertise with) and arranges to supply the magazine with an article on using a debugger when writing Pascal programs.

XYZ company then commissions a writer to produce the article. XYZ company knows that editorial exposure for its product is worth far more than advertising exposure and it is already paying, say, $5,000 to $10,000 per page for ads. So, it may figure that a quality article is worth $25,000 to $50,000 in terms of company image and in direct sales.

Now you can see why XYZ company is willing to pay a few thousand to someone to whip out a three or four page treatise on debugging (using their debugger, of course). Naturally, when XYZ goes looking for a writer, they look for someone who is already published regularly in their target publication. Suddenly, being a published author begins to translate into $100 or more per hour of your time.

Manuals

In the real world, manuals are bread and butter for many technically oriented writers. Writers don't usually choose to do manuals because this kind of work is often the most difficult and least inspiring. Every manual writer I've ever known considered his or her present condition a temporary "dues payment." However, this kind of writing can be interesting, and very rewarding financially.

Manuals are usually long-term projects (6 months to over a year) done on company premises. You will usually get a contact person, a desk, and general run of the area. Because of your close involvement with engineering,

(continued)

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marketing, and other groups within the company, you can begin to feel quite at home.

Freelancing manuals pays anywhere from $15 to $50 per hour. That's not bad, especially considering the length of the project. But, one of the best things you can have in your portfolio when going after a manual writing job is a fist full of published articles. Back to square one.

So you're going to try it

Deciding to do an article is the easy part. It turns out that the act of sitting down and putting something on the screen (*who uses paper any more?*), is quite another thing. In fact, it's even harder when an editor calls and asks "Where's the piece?!" (Talk about a bad case of "Blank Paper Syndrome," that will cause it every time.)

There is something about a blank piece of paper or a blank screen that freaks just about everyone. First of all, it's late (goes without saying) and you are staring at the starkest, blankest white piece of paper (or emptiest screen) ever known.

You try your darndest to organize something in your mind, anything. "Let's see, if I start with the story about the 25-pin ROM that had a leg up on the competition, and then follow with an instruction by instruction look at Z80 opcodes," you mutter to yourself. But nothing really workable seems to come to mind.

Don't stop to think

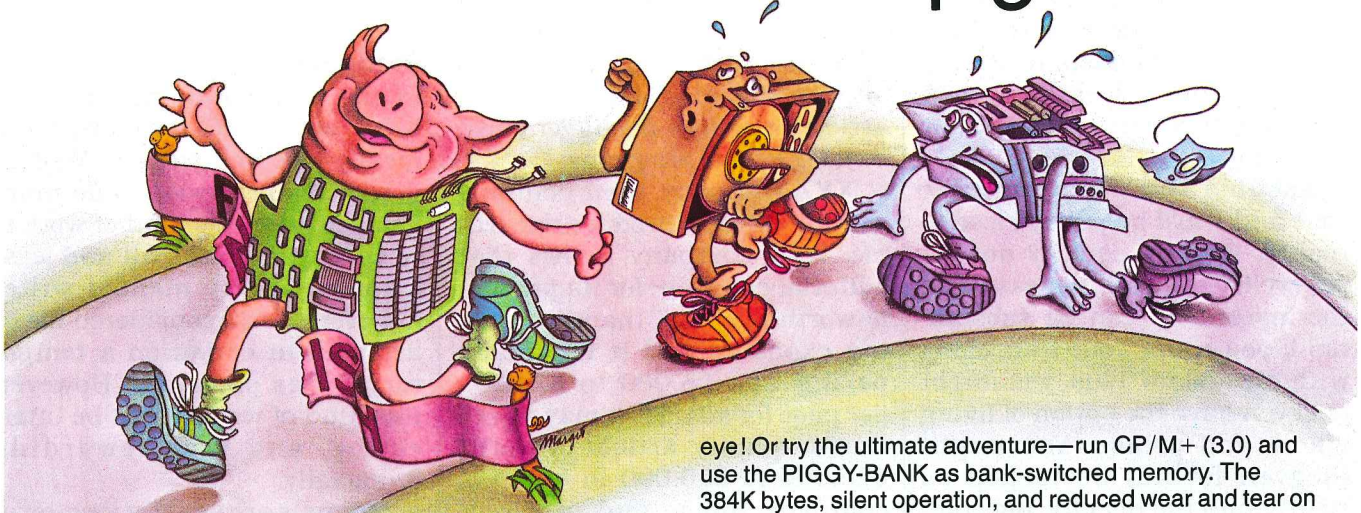
When I sit down to write an article, I start out in freeform mode. By this, I mean that I take the ideas I have and put them on the screen.

They are just a word or two each, no sentences (too much work), nothing to tie them together. They are just enough to jog my memory. That way I don't have to remember them while I do more freeform thinking. All the ideas that pop into my mind get entered, no judgements, bam they are there, strung down the side of the screen with blank lines between them. Sometimes only a few phrases come to mind, other times I can't enter them fast enough.

Coming back later

Once you have dumped your supply of ideas onto the screen, save the file and turn off the system. Go to Tahiti, visit your mother-in-law, anything, but don't beat your

Farmer Brown isn't the only one who can't catch a pig!



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head against the problem right now. This way your head can mull a bit.

After a couple of days, you should be getting some ideas. Don't count on your memory; sit down at the system and get them entered. While you are at it, glance through your previous ideas and see if one doesn't provoke a paragraph or two. Once you have run out of ideas and filler, save what you've done and leave it alone again.

Go off and do something else and don't worry about the article. Your mind knows that the article isn't finished so it will keep working all by itself, just be ready to record new ideas when they happen.

Cleaning it up

After a few more days, you should have your article pretty well entered. Now it's time to look at the basic organization and see how words, sentences, and paragraphs work together. Is there a flow? Are there any jarring changes in tense (past, present, future) or person (me, you, they)? Is all the information correct? (Are the names spelled correctly?) Have you left out anything important?

This part may sound hard, and it is. But you see, most people are in the "enter/organize/cleanup" mode when they sit down to that blank screen. No wonder they are overwhelmed.

I mean, if you overload your mind with picky details up front, it'll never get a chance to come up with ideas. Do the cleaning up when you have something to clean up—it's easier that way.

A few more tips

It's always easiest to write about something that you're really excited about. Did you just figure out a new circuit to add to your computer? Did you just write a new utility to format text files? Did you find a great new data base package? Any of these make ideal subjects for articles.

One of the easiest ways to develop a readable writing style is to pretend you're talking to a friend. You want to be informal but concise. You will not need to show off your great vocabulary because this person is already your friend and doesn't need to be impressed. You should, however, carefully explain important terms so your friend can follow what you are saying.

Feel free to talk directly to your reader (your friend, remember) by using "you" and "I." Include short anecdotes if they contribute and don't be afraid that people won't be interested in your personal experiences. They are. Just be sure these extra goodies don't distract from the subject.

Finally

There is one more thing about writing that I haven't covered so far but is, perhaps, the most important.

Writing is a communication: first with yourself, then with the paper (or other medium), and finally with another person. Like any other piece of art, a piece of writing has its own form and its own evolution.

Just as some artists work in oils while others choose to generate electronic images, some writers work best staring at a computer screen in a windowless room. Others do their best work with pad and pencil while sitting amid the wildflowers high on a wind blown ridge.

Either way, the written word (no matter what the subject) is one of the most beautiful and powerful mediums around. □

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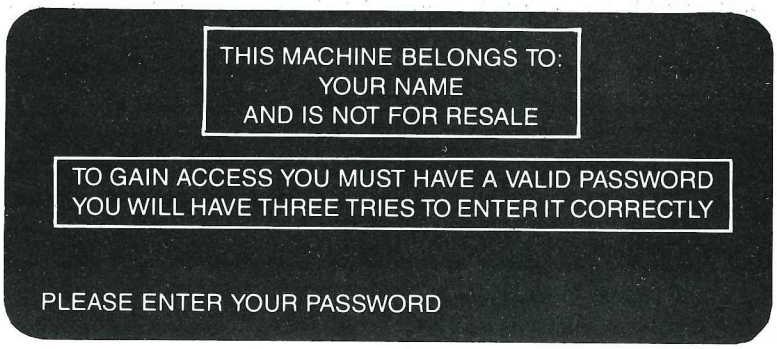

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Warning: SmartKey II makes lesser programs look dumb, dumb, dumb. SmartKey II is a fantastic tool.

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3M Single Sided Double Density and Double-Sided Double Density soft-sectored diskettes are certified error-free, and work like a charm on Kaypro IIs, IVs, and 10s. Every 3M diskette is guaranteed to last over 3.5 million passes per track. This means if you rewrote or updated every track on a 3M diskette once per hour, you would have to continue this process for more than 200 years to equal the 3.5 million pass level. Heavy duty reinforced hub ring furthers the long service life of these diskettes. We guarantee trouble-free, lifetime performance of 3M disks or money-back.

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Box of 10 SS-DD-RH Kaypro II diskettes: **$22.30**
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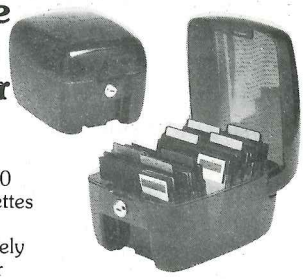
3M Head Cleaning Kits for Kaypros: **$21.95**

Lockable Diskette Defender



This handsome, lockable diskette defender holds 70 Kaypro-size diskettes in a sturdy tray. Now you can safely desk top file your programs and data diskettes for quick and easy reference. This streamlined case is constructed of high impact, smoke-tinted acrylic. Flip-up lid keeps out dust, debris, and moisture, and locks securely to guard your important work. Comes with 7 dividers with index tabs for easy filing and to keep floppies upright to prevent bending, warping, and scratching. Molded recessed handles for worry-free carrying. Tough and secure metal lock never comes in contact with diskettes because it is enclosed in a special plastic housing. This is a super value at the new list price of $27.95. Some sell these for as much as $39. Our low price is $23.95 for one, or $21.95 each if you buy 2 or more. Keep prying eyes and sticky fingers away from your data. Guaranteed. Order today.

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Total	$

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This free offer applies to any 2 or more separate items. For example, a Kaypro Quality Cover and one template equals 2 items; 2 templates equal 2 items, but a single box of diskettes is one item. One free cord per customer. We must reserve the right to end this offer. Don't be disappointed, order today. 12 foot cords sold separately at $12.95 per cord.

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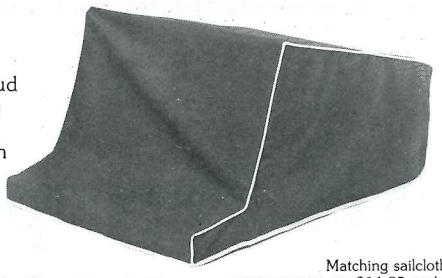
Introducing A Classic Form Fitting Kaypro Cover

Photo: Form fitting Kaypro cover.



At last, the classic Kaypro dust cover you'll be proud to own and use. This first rate computer cover is made from a premium, lint free, static free, washable, free breathing, and fade resistant sailcloth. It comes in a rich looking Navy blue or Royal blue, and has a smart contrasting silver gray piping and trim that adds a superior finished look. Made to form fit and protect a Kaypro that is set up and ready to use.

Matching sailcloth printer covers are $14.95 each. Complete list sent with order.

This remarkable dust cover makes you feel good and will keep your computer dust free and looking brand new for years to come. For a limited time only, your price for this factory direct, custom made, sailcloth Quality Cover is $16.95. When ordering remember to indicate color preference. This special low price is subject to change. You must be completely satisfied with your purchase of this cover or we will refund your money immediately. Order today.

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"Spikes and surges can be the greatest threat to your computer outside a 4 year old child with a jelly sandwich aimed for the disk drive slot."

Enemies of Kaypro ... Spikes, Surges, and Noise!

The Kaypro has enemies. But now you can protect it from the mish mash of electrical currents that race through your home or business. Powerful up-surges of current can actually blow out your machine. Less powerful, barely noticeable spikes, surges, and noise can silently degrade your system in time, ruining chips, destroying data, and causing expensive service calls.

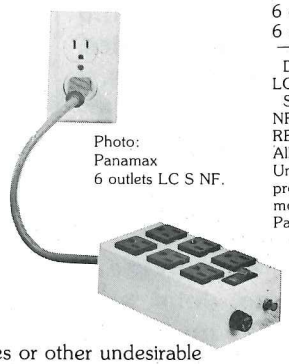

Photo: Panamax 6 outlets LC S NF.

The Kaypro manual states, 'Line filtering will protect your Kaypro...from power surges or other undesirable occurrences from the power source." Surge protection will help your Kaypro provide years of trouble-free service. Also, if you plan to use your Kaypro to access information by modem, you must have a reliable high frequency noise (EMI/RFI) suppressor to insure against data loss and scrambling.

There are many "toy" surge suppressors on the market. They are smartly colored, but beware. The performance difference is amazing. The best surge and noise suppressors on the market are made by Panamax. Our "Panamax Challenge Certificate" tells all. It is a startling comparison of Panamax quality with 11 other well-known brands. One aspect of this revealing report tells how Panamax responds to and cuts surges in 5 or less pico seconds, while most other suppressors respond at a comparably slow 5 to 50 nanoseconds!

Check our regular low prices. Try the Panamax of your choice for 15 days. Receive the "Panamax Challenge Certificate" with your purchase. If not completely satisfied with your purchase, return for immediate full refund. Your Kaypro deserves Panamax protection, the best there is. Order today.

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Description	List	Price
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2 outlets, D NF	$109.00	$79.95
4 outlets, LC S	$107.00	$89.95
4 outlets, LC S NF	$127.00	$110.95
6 outlets, LC S RB	$124.00	$109.95
6 outlets, LC S RB NF	$144.00	$124.95

D: Connects direct to grounded wall jack.
LC: Includes 5 foot long heavy duty line cord.
S: Includes illuminated on/off switch.
NF: Includes EMI/RFI noise filter.
RB: Includes reset button.
All units include the added security of a 4 amp fuse. Unique Panamax EMI/RFI noise filters provide protection in common and transverse mode. Essential for modem communications, multi-user stations, etc. Panamax units are factory guaranteed for 24 months.

"Power line-associated problems are estimated to cause nearly 70 to 90 percent of the malfunctions in the IBM PC."

"Overvoltage can be fatal to both data and hardware alike."
P.C. Magazine, March 1983

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Ms. Perceptions

History reminds us there are no guarantees.

ILLUSTRATION BY JOYCE KITCHELL

by Terian Tyre

Assumptions are sneaky things. They operate in the background, quietly, often influencing events more than any other factor. Unnoticed, they are extremely powerful and rarely challenged. One unusually seductive assumption currently enjoying a renaissance is the notion that new technology is inherently capable of controlling the context in which it's used.

With respect to women, the rosy scene being painted (by well-meaning folks) is that the proliferation of computers will sweep in a new era of social equality.

The reasoning seems straightforward enough. Computers are communication and problem-solving tools, perfectly logical and without bias. It's then concluded that computers will bring about thinking which is more objective and logical, benefiting everyone equally.

Hah.

World history is full of stories about technological innovations which revolutionized the workplace. How many sparked concurrent social reforms? None. In fact, a decade of scrutiny by historians has led to recent findings stating mechanical improvements have consistently been used to reinforce the status quo. Alas, women haven't progressed very far under this state of affairs.

The assumption being used by the picture painters overlooks one fact. Technology is only a tool. After all, some people use a big stick as a baseball bat and some use it as a weapon.

To illustrate this distinction, let's look at two inventions which are commonly believed to have dramatically improved women's lives—the sewing machine and the typewriter.

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The magic needle

The sewing machine was supposed to help liberate women from needlework drudgery. Improvements in the 1890's made the industrial sewing machine both lighter and affordable, and therefore suitable for home use. Interestingly, contracts for garment piece work with a specific clothing manufacturer were often included with a machine's purchase.

That proved a popular angle. Women worked out of their homes, paid for the machines and made some extra money besides. To the sewing machine makers, it sold their product. To the garment manufacturers, it was a cheap form of labor. To women it was another good-looking deal which turned sour.

Consider the employment scene at that time. Jobs were strictly segregated; men's and women's tasks intersected but never mingled. Single women who worked commonly went into domestic service or the textile mills to help support their families until they married. Married women who worked did so out of their homes. Naturally most home workers were women.

Plainly, the picture of a lone woman sewing serenely for "pin money" wasn't accurate even then. Women worked because they needed the money. Piece work turned some households into small-scale sweatshops. Low pay rates meant many long hours and everyone, including children, had to help get the sewing done.

The invention of the sewing machine did improve the speed and efficiency of needlework. It did not improve the employment situation of women however, or free them from much drudgery. It didn't change the traditional patterns of work. Instead, the technology was incorporated into the pattern. Women still worked in a separate sphere than men, with lower pay, and no new groups of women were enticed into the labor market.

Typewriters and the office

The sewing machine is nothing compared to the impact of the typewriter. That noisy machine is credited with adding to women's self-esteem as well as

their bank accounts from its effects on the modern office. But did this evolution come about because the typewriter caused the general populace to reconsider their ideas on the abilities of women? Did it really change basic attitudes? Not exactly—a brief history illustrates why.

Early in the 1800's, paperwork was the tedious part of an apprenticeship in a business office. Of course, nearly all owners and apprentices were men. Later, as the volume of paperwork increased, clerical tasks were separated. Office tasks became compartmentalized and men moved into sales, administration and marketing, leaving the clerical jobs open.

At first, paperwork was handled like garment piece work. Copying was done at home and paid by the word. True to the pattern of home workers, widows and married women with children provided the necessary labor. An 1880 census showed only a very few women engaged in clerical work.

The debut of the typewriter dramatically reversed this picture. By 1910, the census showed females held 83% of all clerical jobs. Mechanizing document production created a new sphere of employment which was well-suited for women of the time. Full-time clerical work inside an office was clean and respected and it drew upon the ranks of the educated middle-class, attracting women who hadn't worked for wages before.

Certainly, the typewriter was instrumental in getting women out of the house and into the labor force. This was not, however, because popular opinion had fundamentally changed to believe it was desirable for women to work outside the home. What really changed was the organizational structure of the business office.

Restructuring business

Imagine a skyscraper with many floors. When business used apprenticeships, the owner occupied the top floor, his successor the floor below, and so on. Now, imagine that same skyscraper if the floors were suddenly separated and reshuffled into the shape of a pyramid.

This is precisely what happened to the office. Of course, owners remained on top, and the many apprentices took up the mid-level floors, but that still left a relatively large base to fill. Typing, filing, dictation, and shorthand made up the bottom of the pyramid.

Once the total picture is revealed, the surge of women into the labor force isn't surprising. There was a vacuum to fill. Women didn't replace men in those jobs; those particular jobs didn't exist before.

It's evident that enlightened attitudes were not a major factor in women's new career alternative. Economic pressures far outweighed any attitude change. Clerical work had to be done, yet it didn't offer much pay. Men were able to bypass those jobs for ones higher in the structure; women could not.

Even as women's labor choices increased, their horizons did not. The new jobs held little chance for promotion in pay or rank and were still segregated from men. This was largely because the jobs were filled by single women, ages 18-25, educated, and waiting for Mr. Right. There was no need for employers to worry about promoting or paying such workers.

Additionally, minor details like slender fingers and soft voices were deemed significant. Employers claimed women had superior manual dexterity and passive temperaments which made them ideal for clerical work. (The same claim was made by the garment industry.) Obviously, the perception of women didn't change with the advent of the typewriter. They were simply woven into the growing clerical role.

This isn't to say that typewriters and sewing machines didn't have many benefits for women. They did. What they didn't do is fundamentally improve women's position in society.

Piece work turned some households into small-scale sweatshops.

Now and later

Societal circumstances are now much different. Women have since entered many former strongholds of male employment. More married women are working and women in general are staying longer in the labor force. There's even been a noticeable trend of women delaying marriage and children until after they've secured careers. It appears, therefore, that most of the misbeliefs about women in the work force have been laid to rest.

However, appearances (like assumptions) are deceptive. There are still plenty of "-ism's", including sexism, alive and kicking in the 1980s.

Granted, computer technology is more revolutionary in its nature than anything previous. It promises to change aspects of

(continued)

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Individual Modules: **$99.95** each

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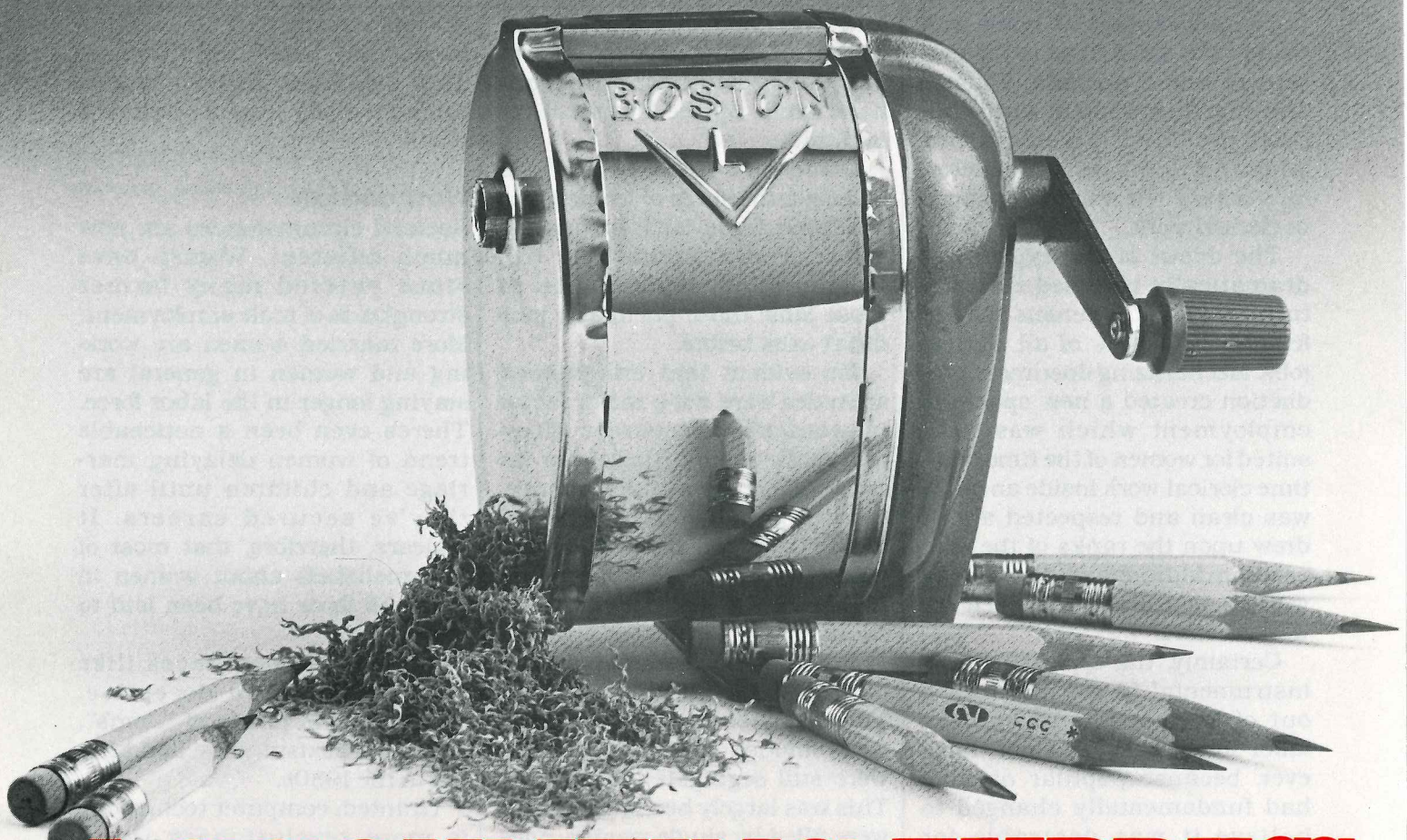

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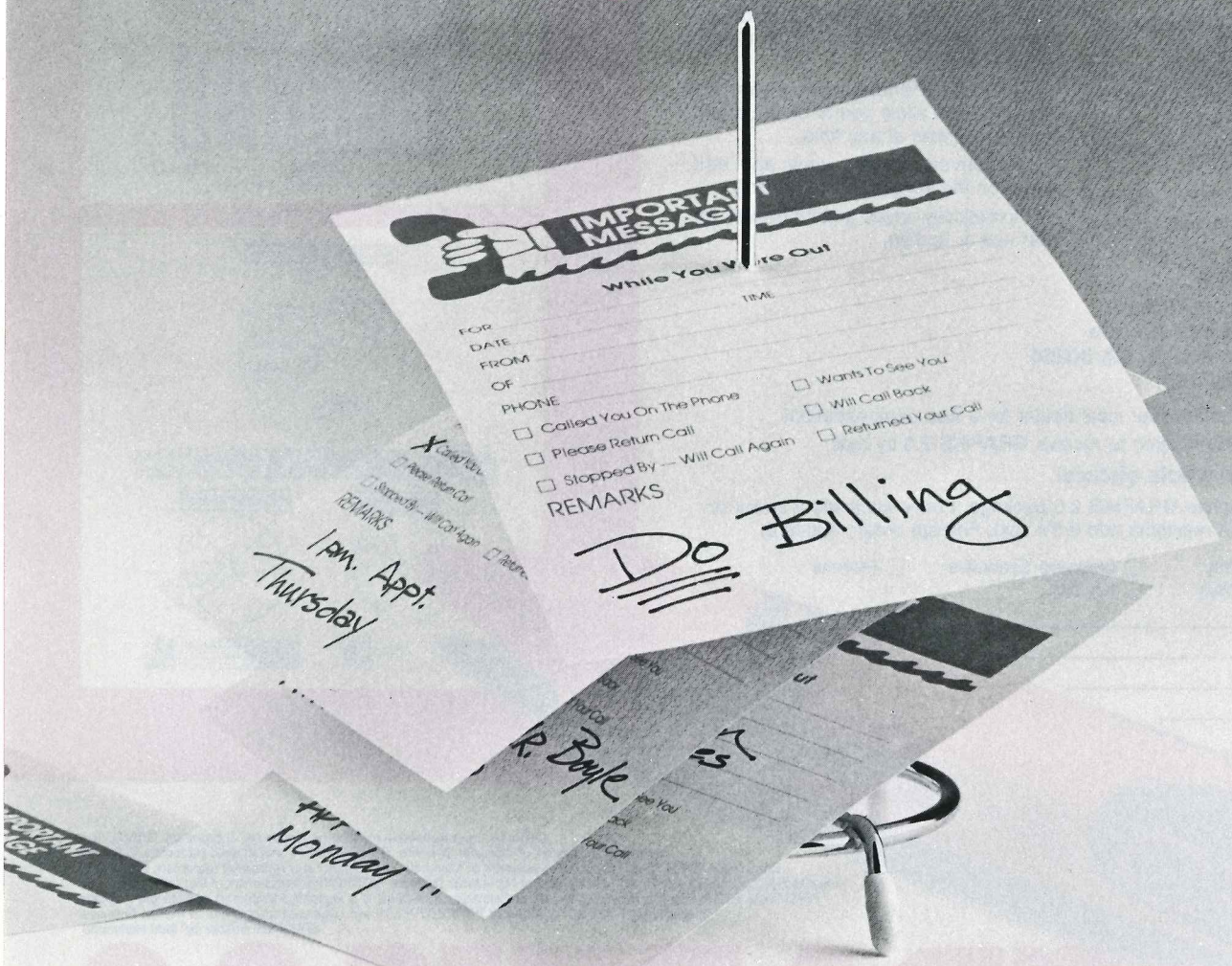

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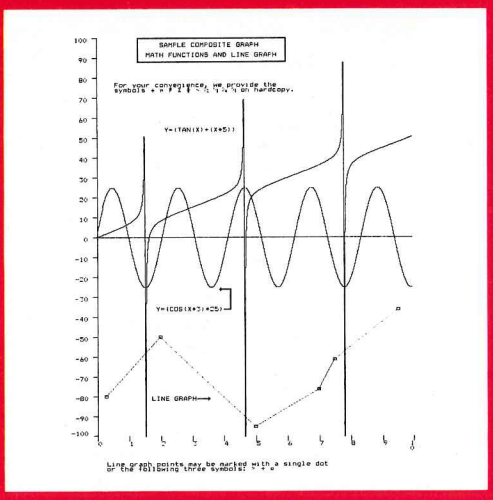

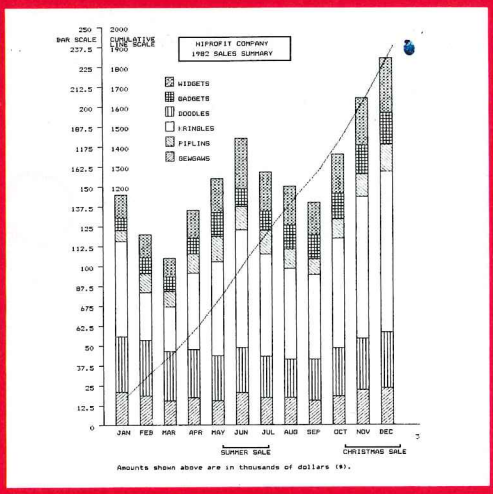

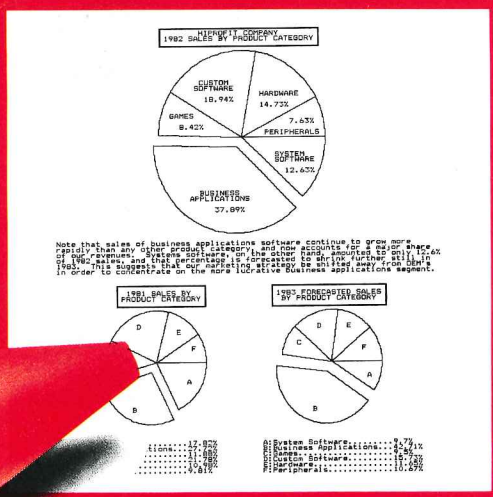

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everyday life and work not touched by other inventions. And it will certainly speed up not only change, but the rate at which change occurs. Still change doesn't necessarily mean improvement, especially in regards to women.

Some things are easy to predict. The ordinary telephone will soon offer instantaneous banking, shopping, and information retrieval at the public level. This should benefit most women by simply giving them more time. It's usually the woman (working or not) of the household who has her days interrupted by running errands.

Other possibilities aren't so easy to foresee or so pleasant to imagine. Will office careers and environments improve or degrade for women? It's possible that modems might resurrect clerical piece work done at home, with its attendant low wages. What would happen to women's primary job pool then?

Modems might resurrect clerical piece work done at home.

Conclusion

Perhaps it is optimism which leads us to believe that an improvement in technology causes a similar effect on people's thinking. Yet changes in attitude occur with considerably less ease than work patterns. I think there's more to the opinion. If people assume that computers will automatically make everything "better," then humans are relieved from that job.

I see this view as part wishful thinking, part fear, and lots of laziness. The first and second elements can be reduced through education. The real enemy is that last factor.

If you define mental laziness as the unwillingness to think, you can see why it's such a powerful force. Millions upon millions practice it religiously. Yet, in choosing not to think, not to participate in decisions, they have made their choice. They have decided to allow *others* to make their choice for them. Historically this has not been the wisest path for women.

Personally, I find something deeply disturbing about no-choice. It seems cowardly to duck one's responsibilities. And it doesn't bode well for a society if its members aren't willing to exert the effort it takes to analyze the consequences of their decisions.

With all the hype about computers, it's easy to forget they are only sophisticated tools and will be manipulated as their operators desire. Assuming that just because the silicon chip starts out unbiased, it ends up working that way in the field, is more than naive—it's dangerous.

George Santayana summed it up well: "Those who cannot remember the past are condemned to repeat it." Women cannot afford to let history repeat itself this time. □

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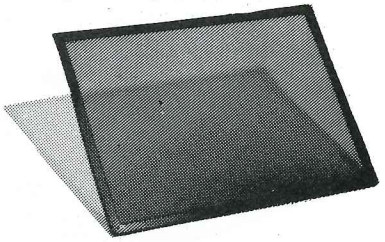

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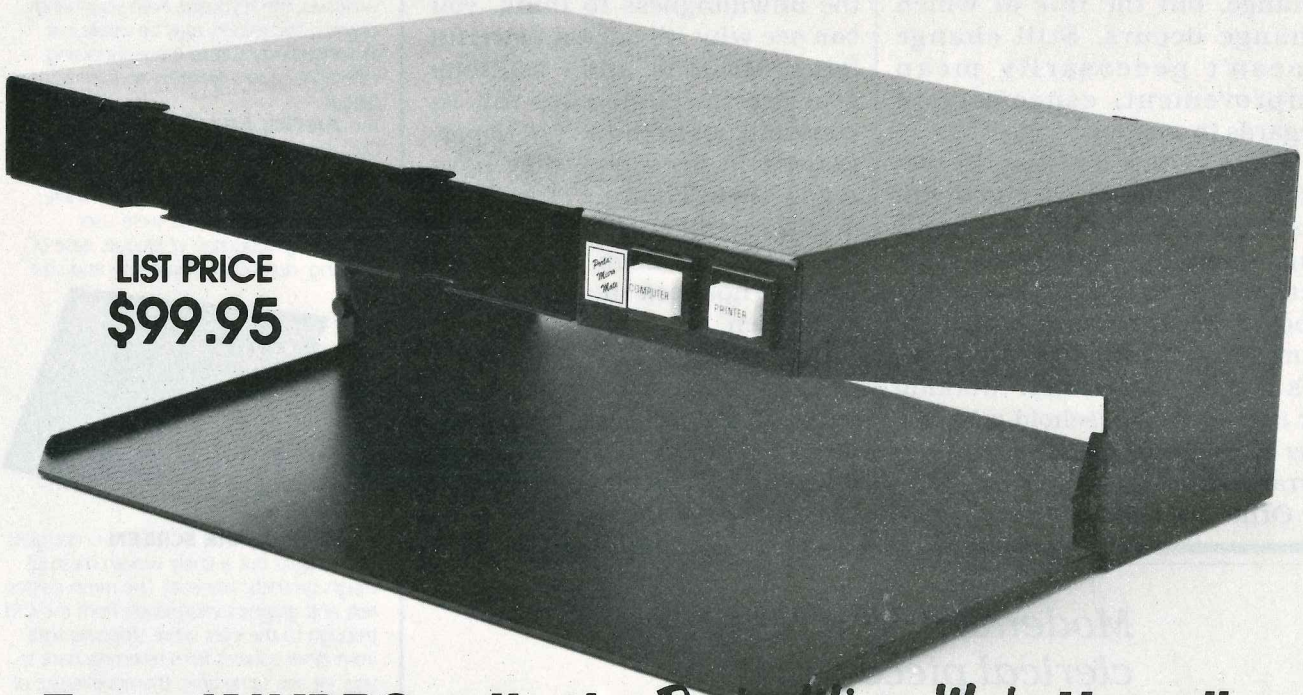

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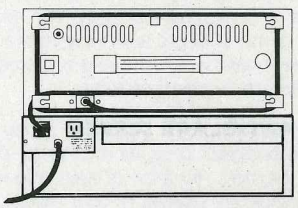

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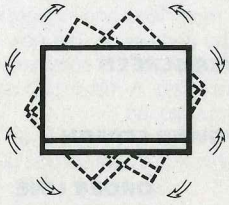

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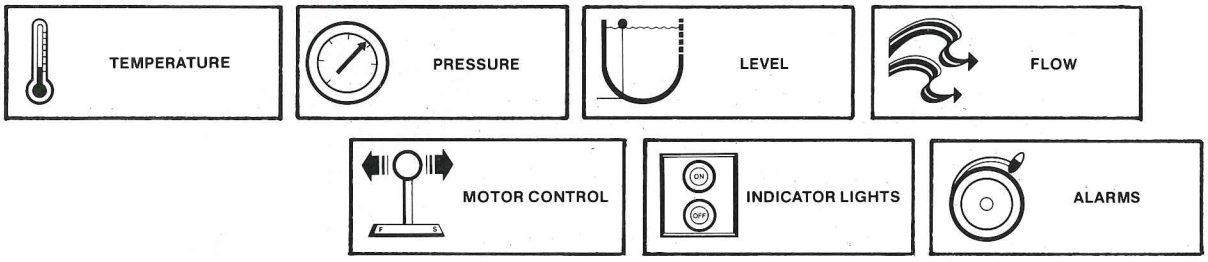

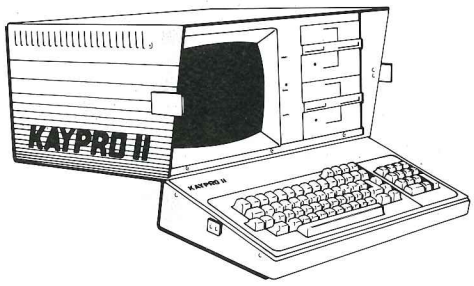

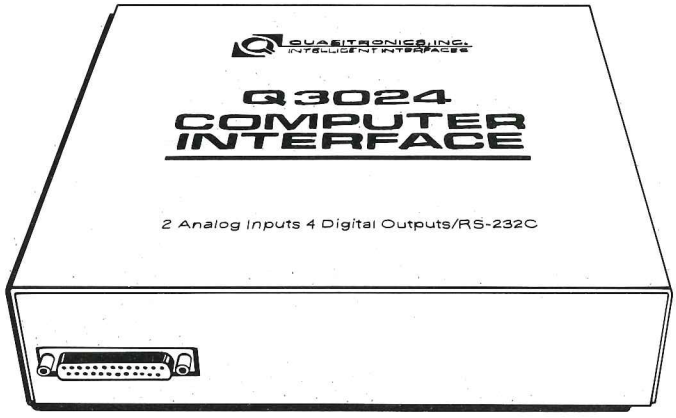

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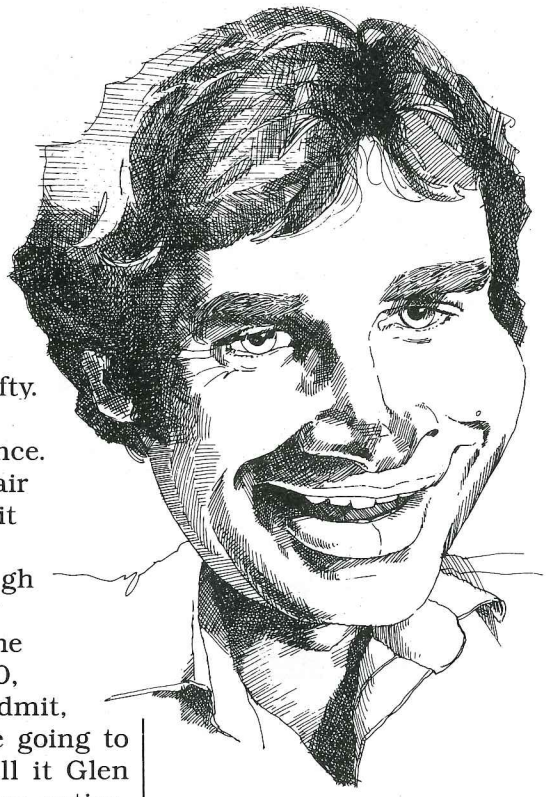

ILLUSTRATION BY JOYCE KITCHELL

by David Gerrold

Unlike my friend and colleague, Jerry Pournelle, I don't believe in naming my computers. The machine is simply "the K-10" and it sits politely on the same stand that used to hold my ADDS Viewpoint terminal. It doesn't take up a whole lot more room, either. Occasionally, however, someone will suggest that my computer should be named HARLIE—after the machine in my (unfortunately now out of print) novel, *When Harlie Was One.* If I'm feeling especially energetic I usually greet this suggestion with a yawn. If pressed for a reason I will mumble something to the effect that only the emotionally insecure insist on anthropomorphizing their machines. (Yes, I talk to my dog as if he's a person, but that's another matter entirely . . .)

The real reason why it's simply the K-10 and not some clever sci-fi derived moniker (like Korax or Koloth or Kolossus) is actually this: it doesn't have enough personality to have a name. Neither did my previous machine, a North Star Horizon. It simply sat stolidly on top of my desk—on top of a *large* part of my desk, I should note—and quietly did its job at four million cycles per second. It didn't have a personality. It was just the big, fat, *dependable* North Star. (Maybe I should have called it Mongo.)

The K-10 does the same job, equally fast. Because it is nowhere near as elephantine a machine . . . it feels nifty. That's the most significant perceptual difference. (But then again, to be fair to the Horizon, in 1978 it was nifty too.) Nifty is nice—but still not enough reason to justify giving the critter a name; so the new machine is the K-10, and that's that. (I will admit, however, that if I were going to name the K-10, I'd call it Glen Gould, because it hums noticeably while it works . . .)

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A little history

The old North Star was purchased as a kit in 1978, and reverently assembled by Pat Lajko, now of CDE software. (Pat is the author of *Checks and Balances,* about which I will have a lot of good things to say in future outings, but let me just drop this one for now: using C & B, I was able to balance my checkbook for the first time in fifteen years. It was not a job that would have been begun by anyone smart enough to realize how dangerous it really was. It took four days and two computers, but the job got done. I suppose that's a reasonable amount of effort, once every fifteen years . . .)

But the North Star served me well for six years; and in all that time it never had a failure of any kind—at least not one that was due to any flaw in workmanship or design. If the machine hung up, I could be confident that it was my fault—and not a *serious* problem. This is the hacker's prayer: "Please, God, let it be my fault!" Using the North Star, my prayers were always answered. That machine spoiled me for a lot of other hardware. (I will expect nothing less than the same level of dependability from the K-10.)

There is this difference though: I never had a hardware problem with the North Star that couldn't be solved by simply lifting off its wooden case (no owner ever left the screws in) and dusting off the boards with a can of compressed air. Occasionally you might have to remove the boards, flex them a little, press in the chips, and run a pencil eraser over the contacts (or a little light sandpaper), but that was the extent of the home service it needed—which was fine by me, because that was the extent of home service I was capable of. The K-10, though, is not as much a tinkerer's machine, so I do not expect to *ever* open up this machine myself. (This is an expectation, not a promise.)

However, even that limited skill of being able to keep my computer working in a hostile

environment (Northridge, CA) was enough to establish me as a computer wizard in the eyes of friends who didn't know any better, and why I found myself regarded as one of the local gurus to be visited on the path to computer enlightenment.

(Tangent: it's not too hard to see the computer as a very Zen kind of environment, especially as it's based on nothing more than patterns of yes's and no's, on's and off's, ones and zeroes. It's the purest expression of the Tao. Yang and Yin. One of the tenets of Zen is that you cannot create a position without also creating its opposition. Therefore: how many Zen Buddhists does it take to change a light bulb? Two: one to change the bulb and one *not* to change the bulb. The interesting thing about this joke is that the more you know of Zen, the funnier it gets.)

Anyway . . .

Sometime in the past few months, I realized that the North Star had stopped being a milestone and become instead a millstone. It's a grand old machine—and because it's a big twelve-slot S-100 bus, it'll never really be obsolete—but unfortunately, North Star DOS has long since faded into that limbo best described as, "Well, it seemed like a good idea at the time . . . " That by itself would not be enough reason to take the beast to market and trade it for some magic beans; no, it was the disk drives. The North Star was also equipped with two Tandon *hard-sectored* disk drives; they were fast, efficient, reasonably error-free—and *incompatible* with everything else in the world. I had to order all my software on 8" disks and have Pat Lajko PIP it over. This was a nuisance, but bearable.

What wasn't bearable was the compiling problem. The North Star double-density drives (single-sided) could only hold 170K. To compile anything but the shortest of programs required enough disk changes to disenchant all but the most determined of hackers.

It was easier to just write everything in BASIC. To hell with .COM files.

Except, there's this game I've been writing, and this supermaze generating program that's part of the set-up, and . . .well, the damn North Star disks were just too small. Pat lent me a double-sided drive for a few months, but then I discovered that over the years one of my drives had drifted *way* out of alignment, and the other drive had drifted halfway . . . and somehow. despite the most careful of instructions to the good folks at Micro-Doc in Van Nuys, the wrong drive was aligned, and suddenly, there I was with two disk drives that were not only incompatible with everything else in the world—they were now *incompatible with each other* as well.

I had to start marking my disks "A: drive" and "B: drive."

I think it was then that I decided that I'd had enough.

Moving to a hard disk

I gave a lot of thought to just adding on a hard-disk unit . . . about thirty seconds. But it would have been another huge box on top of the desk, and that felt like a step in the wrong direction. So, when Pocket Books finally got around to paying me (these are the guys who once lost a foot race to a glacier) for the third book in my mega-novel, *The War Against the Chtorr*, I took a pocket full of cash down to Friendly Computers in Santa Monica and came home with a K-10. (There's this about cash purchases: you don't need I.D., and you don't have to pay interest, and once in a while you can even sweeten a deal by asking, "Do I get a discount for cash?")

The old North Star was purchased by Barry Workman of Workman and Associates (often mentioned by Jerry Pournelle in his regular column in *BYTE* magazine) for the very reason that I sold it. He needed the machine to make his software products available to other North Star owners who were complaining that they were having trouble finding fine software in their format. (Barry first mentioned that he was interested in buying my computer last year at a New Year's party. If Barry were just a little bit better poker player, he wouldn't have had to *buy* it . . .) Barry also carries a lot of spare parts for Tandon drives, so it would be no problem for him to clean and align both of the North Star's (occasionally) fussy drives and keep them in proper operating condition. I, on the other hand, have difficulty maintaining anything more mechanical than a ball point pen. So, it was a good deal all around.

This is the hacker's prayer: "Please, God, let it be my fault!"

Barry has also promised me a review copy of WRITE, the word processing program that Jerry Pournelle cannot be pried free of, and I look forward to seeing if that program is as good as Dr. P claims. Watch for an unbiased

(continued)

review Real Soon Now.

But for about one month I had two computers on my desk, cabled together so I could copy files from one to the other; I had six years' worth of software, at least twenty megabytes of stuff: user-group disks, games, programs, data files, and notes—including the working drafts of two novels and the complete notes for the rest of *The War Against The Chtorr.* This was not a trivial process. I had several *hundred* North Star disks (and an equal number of backup copies) to PIP over to the Kaypro 10. I finished the job a half hour before Barry arrived to pick up the North Star.

After he carried it away (Barry Workman is a *big* man; to him a North Star is a portable computer), I made an amazing discovery: I have a really *big* desk.

I also made two other discoveries, of even more importance to other Kaypro users:

Red, orange and green

When I began copying my North Star disks over to Kaypro, I had no idea just how much data there really was. Real quick I filled up the forty 3M disks I'd bought at Friendly Computers, and it didn't take long to fill the twenty Verbatim disks I picked up at Programs Unlimited in Studio City. Pat Lajko distributes Allenbach disks; he gave me thirty disks and I filled those too. When I ran out of disks, I started copying data into the separate user areas of the K-10's ten megabyte hard disk. Right now, I have less space available on my hard disk than on a brand new floppy.

So I picked up a couple boxes of Centech disks from Micro-Doc in Van Nuys. Centech disks come in a transparent plastic case that opens into a nifty disk caddy, but the real purpose of the transparent box is so that you can see that each disk is a different color. Centech disks come in ten delicious flavors. I like the idea of color-coded disks, so I was looking forward to putting the Centechs to work.

Unfortunately, the K-10 would not format the red, the orange and the green. Not in the second box either. No problem with the light blue, the dark blue, the brown, the yellow, the gray, the beige, and the maroon. But definitely not the red, the orange and the green.

Hmmm.

Back to Micro-Doc. Owner Richard Ravich gave me six replacement disks. (Blue, brown, yellow, etc. No red, orange or green. It probably would have been an interesting experiment to see if other red, orange and green disks would fail to format, but I leave that for someone else to investigate.) Richard also said it was the Kaypro's fault, not the disks. To prove it, he formatted the offending disks on his IBM PC. And, he noted that they've had problems with other Kaypros refusing to format disks; but he didn't know what colors.

So I checked with Steve Laff at Friendly Computer. He said, "Shame on you. You should know better than to buy off-brand disks." But he admitted that the Kaypros have been occasionally fussy with odd brands.

I mentioned all this to Pat Lajko and he called Steve Rice, director of quality assurance at Syncom. Rice said that Syncom has been doing research into this very area, and it's not as simple a matter as it might seem. A colored disk jacket has trouble meeting ANSI standards for keeping out light. (If you hold up a light-colored diskette, you can see the actual disk as a darker circle inside.)

It seems that some disk drives use a red LED to read the presence of a write-protect notch or an index hole; *some use infrared.* A colored jacket is more likely to pass the light than stop it. This makes it difficult for the drive to format the disk or tell if it's write-protected. The colors most vulnerable? Red and orange.

This doesn't explain the failure of the green disk though—or why the yellow disk, which is the least opaque and should be the most vulnerable of all, works fine.

Hypothesis: that particular bath of colors and this particular machine are not compatible. The question remains open. (*For more information, see this month's Technical forum. —TS*)

And a conclusion: I hadn't realized how much I'd come to appreciate/depend upon/take for granted the reliability of Allenbach, 3M and Verbatim disks.

I gave a lot of thought to just adding on a hard-disk . . . about thirty seconds worth.

Critical mass

When you buy a Kaypro from Steve Laff, part of the ritual is The Delivery of the Software. With the K-10 this is a stack of manuals almost big enough to require a handtruck. (The programs themselves are already on the hard disk.) Plus: a copy of *PROFILE* Smagazine. Very conve-

(continued)

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nient, that.

The magazine turns out to be one of the best parts of the purchase.

You'd have to experience it yourself to understand: after six years of staggering through a software desert, it was a heady experience to leaf through a periodical and see page after page of advertisements for things I could actually buy, load and *run on my machine!* I didn't have to look at the bottom first to see what computer they were talking about!

I grabbed my checkbook and immediately ordered a subscription to *Basic-K* (the magazine on disk), and a half-dozen disks from the Kaypro Users Group, and a Vu-Mor rack to hold books and disks, and a subscription to *Micro Cornucopia Magazine* and—

But let me cut directly to the chase.

Within two weeks, I had another two megabytes of software on my shelves, and another two megabytes in transit. This, plus the four megabytes of goodies that came with the machine, plus the megabyte of stuff a friend of mine asked me to decode, plus the half-meg of games I'd had in this file but couldn't run on the North Star for one reason or another, plus the two and a half megs that Pat handed me to look at, plus the two Infocom games I'd bought, plus the twenty megs I'd brought over from the North Star . . .who the hell ever called this a *micro* computer anyway?

This was also the week I had to write two columns, deliver a half-hour teleplay, read the galleys on my book due in June (and write a new ending for it,) interview Leonard Nimoy about *Star Trek III,* teach my regular writing class, be guest of honor at a science-fiction convention in North Carolina (I missed the tornados by two days), and begin the final editing of my twenty-third book.

Thank goodness it was a slow week.

Software overload

So far, I've had just enough time to put some of the disks into the machine and do a directory listing to see what's on them.

I have three word processors.

Three spelling checkers.

A thesaurus.

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A good two dozen data-base handlers of assorted value.
Five compilers.
And . . .a partridge in a pear tree.

I admit it. I don't know where to start.

Yes, I do. DEADLINE. I found out the importance of the ladder, and eavesdropped on Mrs. Robner's phone call, found out how the murderer got into the locked room, and shaded the message on the note pad. I read the newspaper, searched the basement (heh heh), and am willing to admit I'm thoroughly stuck. (But I suspect the murderer is really Miss Dunbar, because she's the only one who doesn't have an obvious motive.) I broke down and ordered a hint book from Infocom.

I think I'm going into software overload . . .

All of which leads me to an interesting observation: if it's this bad for me—and I'm supposed to be what they call an "experienced" user—then what is it like for people who are just getting involved with personal computers now?

And we're supposed to be still at the *beginning* of the software explosion. A lot of the "experts" are saying that the real action of the eighties will be in software—that the software will determine which computers are hits or misses. (I suspect that's why the Kaypro models are selling so well: they come with $2000 worth of quality product. I know it was an important part in my decision to choose a K-10.)

Six years ago there wasn't a lot of software available for *any* machine. Now that's turned around. There's too much software available for *all* the machines. There's too much to assimilate.

What's a user to do?

I don't know what you do—but I read the magazines, *BYTE* and *Infoworld, CP/M Review, Popular Computing,* and whatever else looks interesting in a given month. (Oh, yes—and *PROFILES*). It's a good start. The magazines are valuable signposts in an uncertain territory. And the territory is probably going to stay very uncertain for a very long time to come.

Remember the old Chinese curse?

Congratulations. You're living in interesting times.

* * *

Next week I plan to start getting into this pile of software. Next issue I'll start reporting back to you what I've found. Some of this stuff looks exciting. And some of it may be well worth the effort to avoid.

Stay tuned. □

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CHECKS: This has been a very popular group of programs. Categorizes checks so you can keep track which are tax deductible and which get charged to which projects. Includes source and excellent example check files. Very powerful.
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KayPro Disk K14
Smartmodem Programs

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NEW!

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Pascal Compiler

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NEW!

KayPro Disk K17
Z80 Tools

This is for those of you who are into Z80 assembly language.
XLATE.COM: A very good 8080 to Z80 translation routine.
DASM.COM: An easier to use version of ZZSOURCE (the Z80 disassembler). This full disk includes source and documentation for both routines.

NEW!

KayPro Disk K18
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NEW!

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Micro Cornucopia Magazine

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Micro Cornucopia (Micro C) is the friendly journal for those of you who want to stay abreast of the latest information on KayPros and other single board systems, or want to upgrade your KayPro yourself without paying an arm and a leg. We have regular columns on Pascal, C, S-BASIC, FORTH as well as the popular "On Your Own" feature for those of you who plan to make the KayPro your ticket to independence.

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Edited and published by David Thompson

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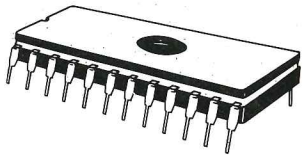

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Brave New Words

How are writers of science fiction adjusting to word processors?

by J. Michael Straczynski

Ever since the early 1920's, when pulp magazines of the era began to publish stories about the possibility—and the impact—of "thinking machines," writers of science fiction have had a curious love/hate relationship with computers.

The idea that the development of computers would lead eventually to total dependence on them was a theme that would be reflected over the years in a wide range of stories. Computers in everyday life would eliminate the adventurous spirit of people, supercede emotion and eliminate love. There were stories in which computers replaced mankind as the dominant life-form; fought wars using humans as unwitting pawns; merged with humans and became cyborgs . . . even stories where the computer replaced God.

Much is often made of the predictive talents of science fiction (SF) writers. And though computers were a frequent topic, there was little written about word processing. Certainly SF writers of the past could not have envisioned the computer coming into their own lives and helping them write stories . . . even stories about computers.

Yet in recent years there has been an invasion of sorts. Word processing has gradually snuck up on SF writers insinuating itself to the point where some can't imagine themselves *not* using a computer. Of course, not all writers welcome, or even use computer aided writing.

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Last of his kind

Harlan Ellison, author and critic, has written over one-thousand essays, articles and short stories, including the ultimate computer-preying-on humans short story, *I Have No Mouth, and I Must Scream*. He is adamant in his refusal to join the ranks of word processing writers.

"I am now, it firmly and unequivocably appears, the last writer alive today who has not been seduced, somehow, by some kind of electronic means of transcription," says Ellison. "I use a manual typewriter. I will definitely not *ever* convert to a word processor."

Though Ellison is notoriously partial to electronic gadgetry, "because there are all sorts of aids that will help us and not atrophy our native instincts," he sees word processing as a lazy approach to writing.

"A word processor is convenient, and I don't *want* writing to be convenient," he says—one of the few people who actually speaks in italics. "Writing is work, it should be work.

"You should have the perception of being in contact with your work—the work is a living thing. The work and I form a gestalt. And by distancing myself from it, even to the extent of an electric typewriter—where I remove myself from the physical act of putting the words down on paper—I would distance myself from my readers."

Ellison also takes exception to the terminology involved, comparing a word processor to a food processor, a blender. "*Word processing!*" he announces. "I don't even know what that *means*. And they don't even use English anymore. You can 'access information'—that's ungrammatical, apart from everything else. They're using a lot of ungrammatical talk, and because there are so many of them, they say, 'Well, everyone knows what we mean.' That's the tyranny of the mass, and I just really resist this whole, lemming-like rush to pick up the latest toy. I am blissfully and happily recidivist in this area."

Not totally convinced

John Varley, author of *Titan*, *The*

(continued)

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Ophicuchi Hotline and numerous short stories is another hold out. "I kind of see myself as the opposition. I compose at an IBM Selectric, and I really like it. Word processors are good for people who do lots of rewrites, and I'm one of those who doesn't do much rewriting. I do my revisions in pencil then give it to a typist who, for $500, turns out a beautiful manuscript ready for submission.

"Not that I see computers as the machines of the devil, or anything like that," Varley continues, "but I am disturbed by some of the things I see. I'm seeing a lot of writers who aren't making a lot of money investing $5,000 or more in a word processing system. I think that's a big waste of time and money unless you have a lot of other uses for the thing."

Varley also questions the computer's creative value. "I doubt that it would help the creative process for me, though it may help someone else. In fact, I have this lingering feeling that, rather than improve it, a word processor can actually make your writing more sloppy. You're going so fast you don't have time to give something the consideration it may deserve." He expresses concern about the future. "I can see a point somewhere down the line where it helps you out so much you're hardly writing at all."

Just when everything was going well Varley admits "I think there probably is a word processor in my future. I admit that this is a contradiction, and I'm not upset about it."

With reservations

Norman Spinrad is an award-winning writer whose novel, *Bug Jack Barron*, is among the next few feature-film projects due from Costa Gavras (producer of *Missing*). At science fiction conventions and other gatherings, he has been an outspoken critic of word processors. And he has just ordered a Kaypro 10.

"I have reservations about it," says Spinrad, "about the creative relationship with the screen as opposed to the paper. You don't know how it's going to work out until you try it. And of course, I'm concerned with losing manuscripts."

Spinrad cites as a reason for his technological leap his "terrible typing. I hope that it'll make life easier for me in revising, though I don't think it'll do much for me on first drafts." Suspecting computerization isn't for everyone, he adds, "People like Harlan Ellison, who writes everything in first drafts—perfect typist—what the hell does someone like him need a word processor for? It's all a matter of individual tastes and work habits.

"Science fiction writers were the first people to get these things," he says with a kind of befuddled pride, as he explains he's glad he's waited until now to computerize. "That's why so many SF writers have such crummy machines—they got theirs so early. I just hope I'm not making a mistake."

Among the other advantages to word processing that Spinrad cites is the ability to ship novels on disks instead of on paper. Not only is it more efficient and cheaper, but one publisher, he notes, "is offering SF writers a bonus of so many dollars per page per book, if they'll give him disks ready to go. What it means, of course, is that you're doing his typesetting for him."

For some writers, however, the process of converting to word processing was neither costly nor of long duration. "I was asked to do an article for *Popular Computing* about my word processor," says Isaac Asimov—who with almost 300 books to his credit, as well as a respected magazine that bears his name, needs no further introduction here. "I explained that I didn't have one, so they got me a Radio Shack TRS-80. Had it been left to me, I probably would have stuck to a typewriter forever. I've been using the TRS-80 since June of 1980—suits me fine." He's not converted to his computer completely, however. "I still use a typewriter for everything but short pieces and final copies."

"I have this lingering feeling that . . . a word processor can actually make your writing more sloppy."

Though Asimov agrees word processing is in some ways more efficient, there is a limit to the speed of creation from his point of view. "I never had any trouble with the creative process," he says, but "I don't think I can further increase it. I'm afraid that the bottleneck in my case is the speed of thought, and there's nothing I can do about that."

He sees word processing from a utilitarian standpoint. "What the computer does is to turn out cleaner copy. It's easier to edit, without the editing showing, but I never edit much. I can make trifling changes, and still produce a clean copy—with the possible psychological effect that it *seems* better written."

Commenting on SF writers in general, Asimov continues, "Just because science fiction writers deal with technology doesn't

mean they have to be involved in it directly. I write murder mysteries, but I don't necessarily have to carry a gun."

Convinced

"We are not necessarily our art," says David Brin, the secretary of the Science Fiction Writers of America, and author of a Hugo-nominated novel. "A lot of us are writers for the same internal, psychological reasons as Dickens. A lot of us write SF for artistic reasons, and not because it extolls technology.

"Still," he admits, "word processing has made writing a real pleasure for me again. I would never go back to ink pot and quill pen, or sending my manuscripts out chiseled in stone. When I chipped manuscripts chiseled in stone, the chips kept getting in my eye—to white-out a mistake you had to wait six days for it to dry—and you end up shipping the manuscript out ninth-class barge mail."

David Gerrold addresses the question of word processing with an intimidating degree of cheerful enthusiasm. An SF writer noted for such books as *The Man Who Folded Himself* and *When Harlie Was One* (the latter about the growing pains of a sentient computer), Gerrold also scripted the classic *Star Trek* episode, "The Trouble With Tribbles."

"When I got into writing, all I had to work on was my mother's old Smith Corona manual.

"In 1963, I took all the money I had saved working as a busboy, and bought a new IBM Selectric for $600." After writing six novels and an undetermined number of screenplays on the IBM, Gerrold upgraded his typewriter with an add-on Savin Word Processor at a total cost of $4,000. "It was real convenient, 'cause then I started writing on rolls of butcher paper.

"I did about four more novels on that, and then I could see I wanted more, so in 1978 I bought a Northstar computer and an

(continued on page 46)

> *"SF writers were the first people to get these things. That's why so many have such crummy machines."*

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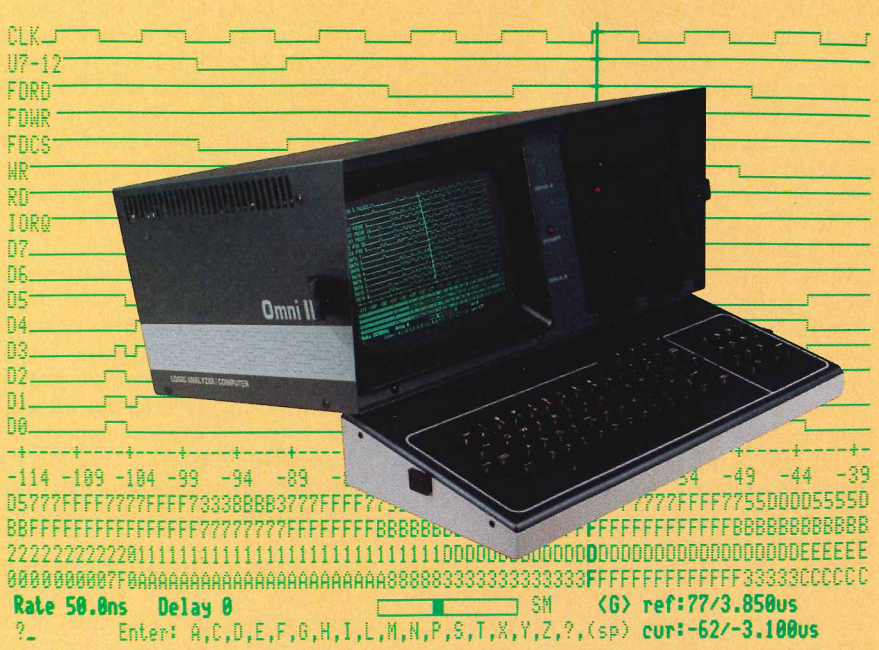

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Processed Words—Yum!

by Mel Gilden

For a long time, I resisted buying a word processor. Being short of cash was helpful, but I swore that my reasons were more than financial. My observation was that most of the folks I knew who had a word cruncher were something very much like hacks, and the more copy they produced, the lower its quality.

Each word processing owner spoke in glowing terms of his or her machine—showed it off to me as if the word processor were an especially well-trained dog. "Seduced!" I cried. "Perverted!" I hollered. I thought it would never happen to me.

But it did.

One summer, I became one of the unemployed. Instead of immediately looking for a conventional job, I decided to put my typewriter where my mouth was and see if I couldn't write full time, the way some of my friends did.

I tried writing both fast and well on my old manual typewriter. But my copy did not always represent my best work because, when a page was heavily marked already, I sometimes stopped editing it just because I had neither the time nor the energy to copy the page over once again. A word processor looked better and better all the time.

When I got one at last, I was ecstatic. It slices! It dices! It juliennes! It makes french fries! Processed words—yum! I could edit on the screen. I would never again have to copy something over. Instead of sitting hunched over a typewriter, I could lean back in my chair with my soft-touch keyboard in my lap. When I wrote to length, I would be able to tell exactly how long the piece would be even after making additions and deletions all the way through.

And I could make those additions and deletions. If I wanted to plant a fact or a scrap of dialogue at the beginning of a story or script, I could do it. If I discovered that a piece was too long, or that a part of the text wasn't necessary after all, I could take it out. All without "A" pages. All without copying the sucker over to clean it up.

I discovered that it isn't only hacks who crunch words—though many hacks probably do. Anyone who has ever had second thoughts about their writing, who has ever edited and fixed and changed until the words were just right, should consider using a word processor.

Not that a word processor will *make* you a better writer, or a worse writer either, for that matter; it will not *make* you compose faster if the ideas are coming slowly that day. But it may *allow* you to be a better writer.

If you are working on a conventional typewriter and you've just copied the same page for the third time, you might be reticent about typing it over again, even if you've noticed a typo, even if you see a place where you can chop out a word, or a place where an additional one is necessary.

But if you have a word processing program, you can make all the changes you want, secure in the knowledge that *you* won't have to type the sucker over again—that the machine will do it for you. This takes away an enormous amount of worry, frustration and pressure.

Still, word processing is not without its drawbacks. When I bought my system, I was intimidated by the very idea of using a computer to write with—I, who had never owned so much as an electric typewriter. I kept telling myself that it would take a week or two to become proficient enough at running the machine in order for it to be useful to me. I couldn't spare the time.

Time? In the long run, the thing would save me months, maybe years of editing and copying time. Why couldn't I spare a couple of weeks to learn how to use it? I was afraid, that's why.

What if it didn't work? What if I couldn't figure out the machine or the programming or whatever? I knew so little about computers and word processing that I didn't have particular boogey men, just sort of a vague fear that this all was beyond me, and that I would soon get what I deserved for climbing Olympus to cavort with the gods.

After a week of eyeing the machinery warily, I removed it from the box—the monitor, the disk drives, the printer, the tractor feed. Wow! Star Trek in my living room. Having made the decision to start, I couldn't wait to plug the stuff in.

But how to get the machine up was just the first on my list of new worries. What if I lost pages of manuscript? How would I read my disks if the disk drive got out of adjustment, or dirty, or cranky, or whatever? Even today, I save my document every paragraph or so. So far, the only time I've lost data has been through operator error, and there is much less of that as time goes by.

Even with a full screen, I could see only about a third of a manuscript page at a time. It was a claustrophobic feeling. And though scrolling up or down is easy enough, and I am getting used to the look of the screen, this is still not a situation that I am comfortable with.

Writing is never an easy job, at least not for me. It has its own frustrations, most of which have to do with plot, characterization and the other lumber used to cobble together a good story well told. Like Frederick Brown, unless the work is going well (a state determined by a variety of requirements) I hate to write, but I love to have written.

But the worst frustrations are those purely mechanical ones that a writer suffers when using a conventional typewriter. Imagine having actually met a deadline on a project, and then having to stay up all night to copy it over. There seems to be a rule about this too: the later you stay up, the more mistakes you will make, and the longer it will take the white-out to dry.

Shaking your fist at the universe will do you no good. Neither will screaming in rage. The only thing that will do any good is using a word processor. □

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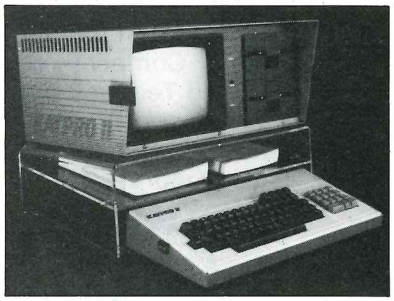

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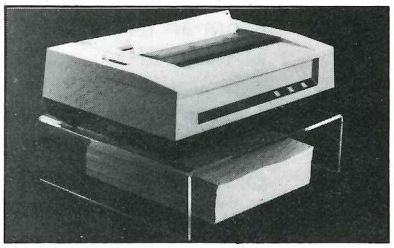

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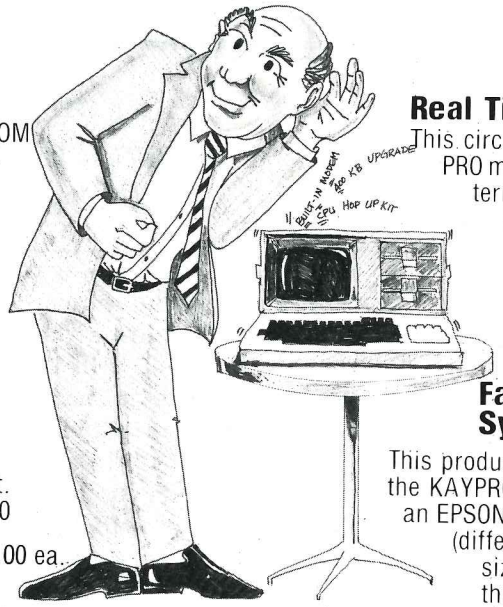

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SF WRITERS
(continued)

NEC Spinwriter printer. I've always been advancing to the next level of technology," says Gerrold.

He explains that although word processing is a definite aid to the creative process, it isn't as much of a time saver as newcomers might expect. "If you spend eight hours a day on the typewriter, you'll still be spending eight hours at the word processor, but the quality of the work you produce will be more effective. It's quality time, not busy time. Instead of doing one hour of work and four hours of typing, you end up doing four hours of work. The computer does the work that the human being shouldn't have to—the retyping, moving blocks, cutting and pasting. The time you spend is more focused on the actual creating of the text.

"... For the first time in six years, I was paralyzed. I could not write on a typewriter."

"I could not go back to the typewriter," Gerrold continues. "When the Northstar was in the shop for a week and a half, for the first time in six years, I was paralyzed. I could not write on a typewriter. It was like, 'What do you do with these things? Where's the screen?' It was a shocking experience to realize just how transparent the computer environment had become for me to work in."

After using the Northstar for seven years, Gerrold has just switched over to a Kaypro 10.

Speaking as a writer of *science* fiction, Gerrold says, "I like the technology. The computer is the next step of technology, and if people want to work with an inferior level of technology, I think what's really at work is that they're afraid of the thing being out of their control." He doesn't feel, though, that by virtue of dealing extensively with the future and technology, SF writers should be leading the new technological wave. "I don't think science fiction writers *should* anything."

Balance

An informal survey of a number of other science fiction writers turned up one word processor convert after another. The list includes Michael Reaves and his wife (who own His and Her computers,) Anne McCaffrey, Larry Niven, Jerry Pournelle, Robert Silverberg—the list goes on and on.

Typing words on a word processor, the writers agreed, will no more make you a writer than a scalpel makes a brain surgeon, if the other elements necessary to writing are absent. The creative drive, the writer's eye and sensitivity must be factored into the equation, or it just won't work.

"It's important to remember that technology hasn't just been invented," concludes Isaac Asimov. "We've gone from chiseling on stone or in clay, to writing on papyrus, on parchment, on paper, to printing, to word processing. But in the last analysis what remains unchanged is the creative process within the brain. Anything else is just a tool." □

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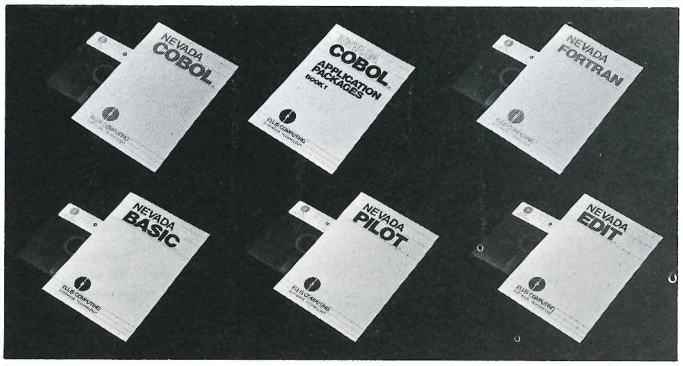

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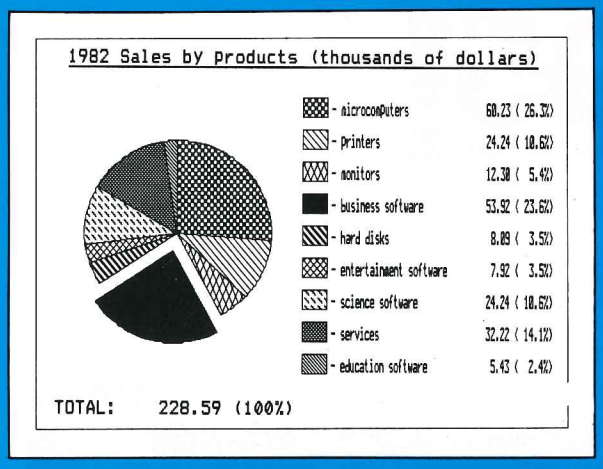

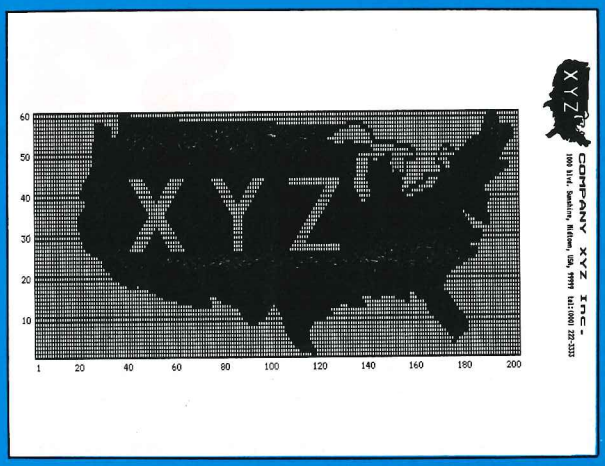

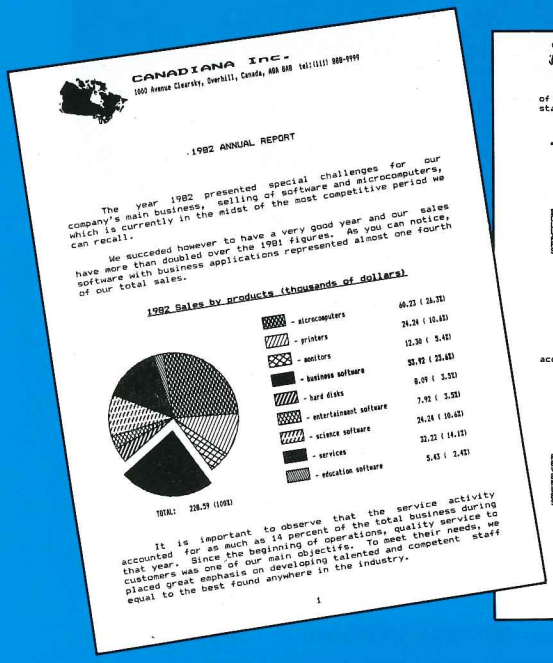

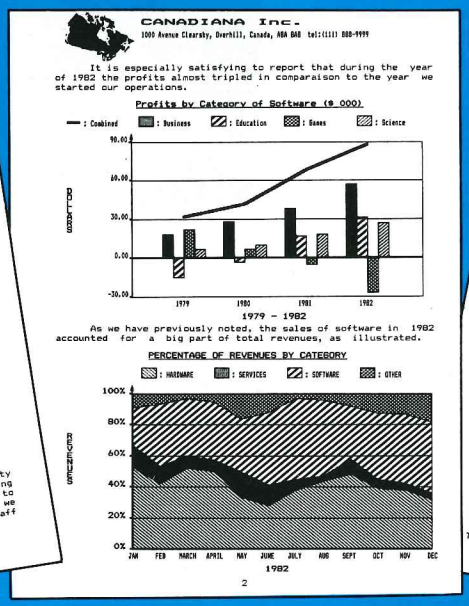

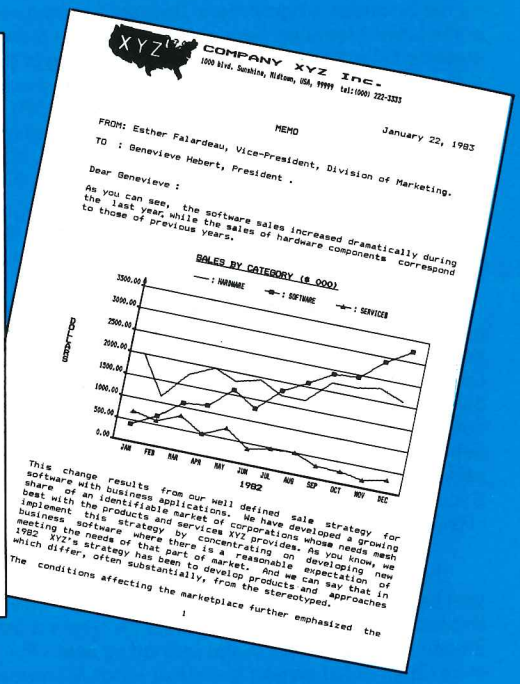

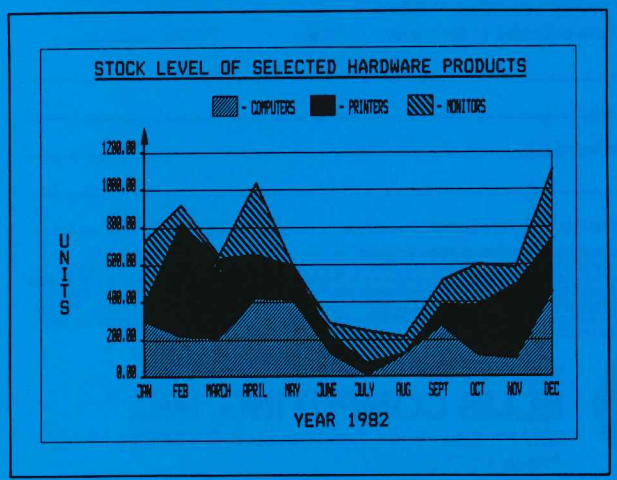

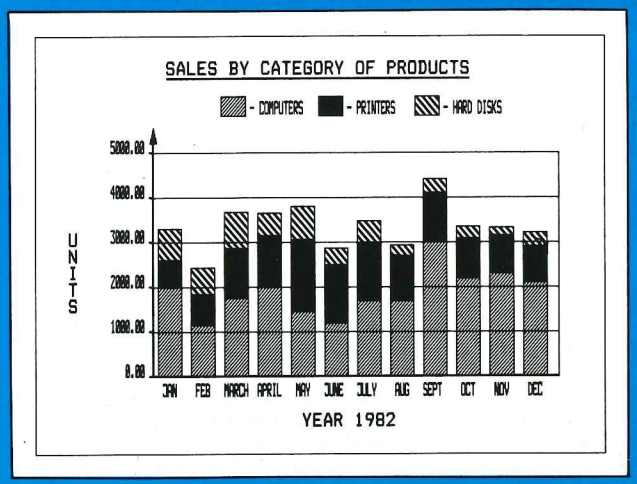

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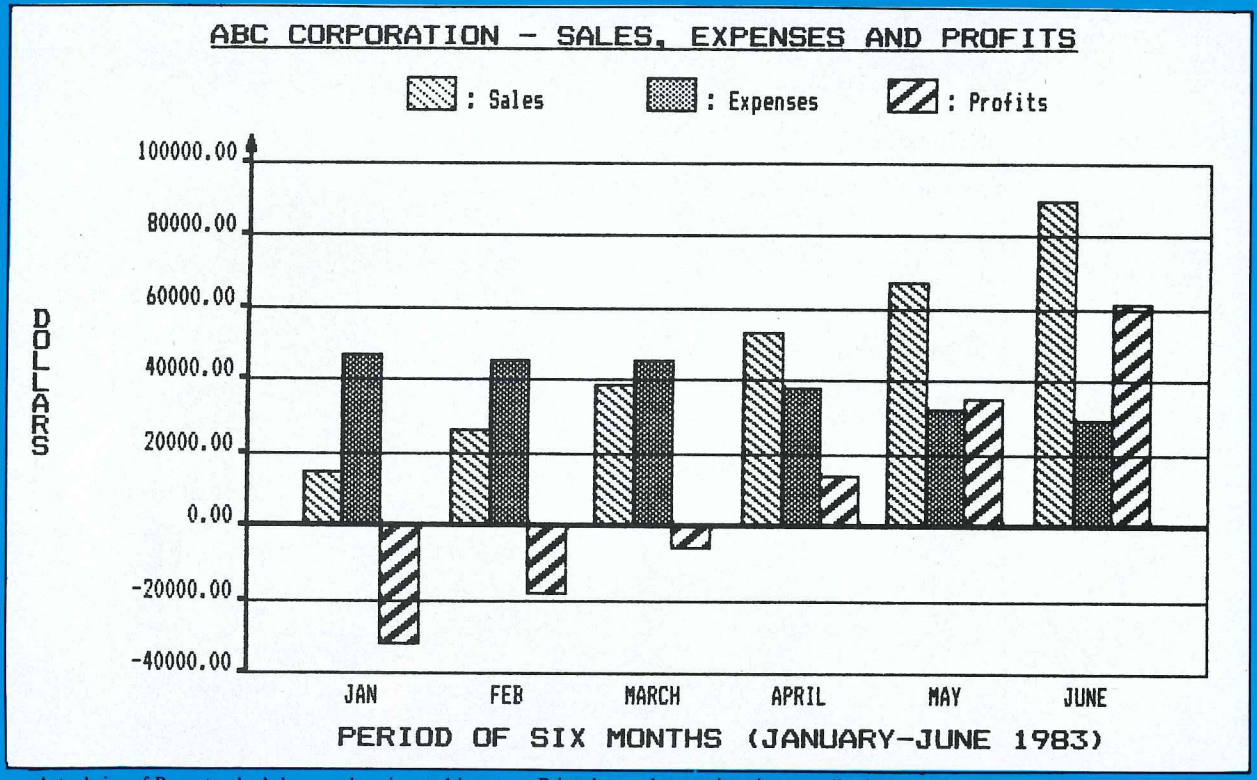

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Punctuation: The Lost Art

A look at stops, pauses, pacing and word processing.

by Wayne Howell

With a few deft keystrokes writers with a word processor can send their cursors leaping and darting about the screen, collapsing and expanding sentences, zapping superfluous commas, and substituting this punctuation mark for that one. Polishing prose to a high gloss has been made easy; what was work on the old Smith-Corona is play on the Kaypro.

Given this, one would expect that if the electronic slate were to have any subliminal effect on style it would be to encourage more ornamentation—the style we associate with Victorian writers. But no. That is not the message the new medium gives, at least not according to Craig Brod, California psychotherapist and author of *Technostress—The Human Cost of the Computer Revolution.* In his recently published book Brod says many writers using word processors report the newfound speed "alters the relation between conceiving an idea and phrasing it on paper" and this causes them to write in a sparer style, using shorter sentences and simpler grammar. The result is writing that is "much like a telegram."

I doubt there is a malevolent McLuhanesque spirit lurking in the heart of your Kaypro whispering "telegramese" in your ear when you sit at the keyboard. (If there is, it would make a good plot for a Steven Spielberg movie.) In any event, all writers should be on guard against telegramese, monotonous prose that clumps along predictably; prose that has no rhythm, no beat, no lilt, no syncopation—no surprises.

One of the best ways to avoid monotony is to pay attention to punctuation. Most writers are more concerned with *le mot juste* than with punctuation, and with good reason. It is by your words they shall know ye. Nevertheless, careful attention to punctuation can pay dividends.

I discovered this when I was writing a political satire column for a newspaper. Often I would strive for a particular effect or mood, and not achieving it, would give up in frustration. In time I realized that I could achieve the effects I wanted by carefully controlling the pace by means of the punctuation. I also found that the tricks I used to time a punchline could be put to good use in a more conventional context. They allowed me to produce tighter, more cogent arguments when I wrote medico-legal reports.

Punctuation marks are nothing more than little time delays; their function in a sentence is not unlike a delay-loop in a computer program that controls program execution or screen display. Originally punctuation marks were devised to facilitate the public reading of prose or poetry by marking off the pauses. When reading became more of a private activity than a public one, "elocutionary punctuation" gave way to "syntactical punctuation." The latter is more concerned with clarifying the text to avoid ambiguity. But notwithstanding the ascendancy of the syntactical school of punctuation over the elocutionary school, a writer should still keep the original purpose of punctuation in mind.

Prose that captures the rhythms of human speech is seductive. Good essayists know this. James Fallows, the Washington editor of the *The Atlantic* magazine, writes on a word processor and then edits in this manner: "When I think I'm finished with an article, I set the print speed at about 100 words per minute, or roughly the pace of reading aloud. I stuff my ears with earplugs and then lean over the plate as the printing begins. Watching the article printed at

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this speed is like hearing it read; infelicities are more difficult to ignore than when you are scooting your eye over words on a page." The Fallows method is great—if you get your printer ribbons wholesale. If you don't, try looking for punctuation infelicities on your monitor. Start from the beginning and read as rapidly as you can while moving your lips; by so doing you will avoid scooting and you will be approximating the speed of the average reader who—unlike you—did not write the piece, and has never seen it before.

I want to encourage you to experiment with punctuation and try out some pauses and stops that, for one reason or another, you never or no longer use. Punctuation is very much a matter of personal style and you don't have to use all the stops to write effectively. But you should know them all, so your decision not to use one or the other is an informed one. I am sure Ernest Hemingway knew how to use the semicolon despite the fact that he never did. He was just not a semicolon kind of guy. However, the Nobel Prize committee did not hold his aversions against him.

The period

If we arbitrarily give the comma a time delay value of one, then dashes and semicolons have a value of two, colons three, and periods four. Since periods control sentence length they have a profound effect upon the overall pace of your prose. A plethora of periods makes your composition *andante*, or slow, a paucity makes it *allegro*, or rapid. A good fiction writer will vary pace to invoke mood or convey emotion, but pace is just as important in non-fiction as fiction; in fact, it can be more so. If you insist on dragging readers through a thicket of abstract concepts and technical terms at *allegro* speed you run the risk of losing them.

When editing for periods bear in mind a procession of sentences of equal length induces boredom. Seek out those sentences related by way of subject and try replacing the periods between them with semicolons, if you feel you want to slow the pace a bit, or with "and's" if you don't. In the process of creating some longer sentences you will inadvertently create some shorter sentences as well. This is all to the good: a mix of short and long sentences produces a pleasing rhythm, and the statements you make with the shorter sentences will seem punchier.

The comma

Commas control the micro-environment of a sentence just as periods control the macro-environment of a page. The trick with commas is to use just the right amount of them. If you use too many, your sentences become, well, jerky. If you use them too sparingly your sentences tend to scroll by too fast inducing a feeling of breathlessness in the reader which can easily result in confusion and incomprehension especially if you are using big words or technical terms.

How to strike a happy medium? The simplest way (assuming you are not one of those writers who rides the comma key like a bad driver rides the clutch) is to do your thing and let the commas fall where they may. Then go back to the beginning and enter "lip-moving edit mode." Use the delete key to zap out those commas that get in the way of an orderly flow, maintaining only those commas that are essential for clarity of meaning or instrumental in maintaining the pace you desire.

The semicolon

Many writers avoid the semicolon, either because they are afraid they might use it incorrectly or because they consider it a little too literary. This is unfortunate, because the semicolon is one of the most useful punctuation marks in a writer's tool-box.

The semicolon has a time delay value approximately halfway between the time delay value of the comma and the period. It comes in handy for separating two short sentences which could stand independently with a period between them, but which are somewhat closely connected in sense. Connecting two such sentences with a comma is a grammatical no-no. Letting them sit there smacks of the dreaded telegramese. The answer is to slap in a semicolon.

Using semicolon you can string together many independent clauses to create very long sentences. Such sentences can be useful when you are marshalling an argument and driving to a conclusion; the conclusion seems more inexorable if it is arrived at in this manner. (You can use semicolons to construct truly colossal sentences. The American record is held by William Faulkner: a sentence in *The Bear* runs slightly over 1,600

Prose that captures the rhythms of human speech is seductive.

words, or approximately 6 pages.)

Semicolons are also useful for cleaning up a long comma-strewn sentence. Look for those commas that delineate the major subsections of the sentence and replace them with semicolons; this can improve the readability of a long convoluted sentence to a remarkable degree.

Like Cayenne pepper, dashes should be used sparingly.

The colon

The colon was the original punctuation mark, appearing in Greek inscriptions as early as the fourth century B.C. It was not until two centuries later that Aristophanes made the comma and period popular.

The colon is mainly used to introduce lists or quotations and many writers shy away from using it in any other circumstances. But it can be used in other circumstances: since its time delay value is slightly longer than that of the semicolon, it serves very nicely when you want to isolate a word or phrase for ironic effect. Example: "If you continue to follow his investment advice, you're likely to end up just like him: dead broke." This kind of punctuation can be very effective as long as you don't overdo it. Try experimenting with the colon, putting it in where you want to grab the reader's attention.

Parentheses

Brackets serve to create footnotes in the body of a sentence. These references, explanations, or "by the way" remarks are not essential to the sentence and the sentence should read just as well without the parenthetical expression (what you put between the brackets) as with it. Extremely long parenthetical expressions (especially those containing actual sentences with punctuation marks of their own) sometimes cause the reader to forget his place when the bracket is finally closed and he is thrust back into the mainstream of the

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sentence. Unless you purposely want to discombobulate the reader, you should avoid this kind of construction.

Parentheses have almost no time delay value and consequently they can be useful for rescuing a flagging pace. After you have finished writing, reread with an eye to see how many sentences serve no other function but to explain or elaborate upon the ones that precede them. These sentences might easily be stripped down to their cores and inserted as parenthetical expressions in the preceding sentences.

The dash

The dash did not really come into its own as a punctuation mark until the twentieth century and there are still some writers who refuse to recognize it as a legitimate stop and will have nothing to do with it. From the time delay point of view it is more or less equivalent to the semicolon, but psychologically it packs more punch. Single dashes are useful when you want to tack an afterthought onto a sentence - like so. And pairs of dashes are extremely useful for offsetting and highlighting parenthetical remarks that are not so much explanatory as downright snarky. Example: "It appears that Senator Millbank—the senator from Exxon and Gulf—is going to support the oil bill."

Like Cayenne pepper, dashes should be used sparingly. Some writers—especially journalists—resort to them when they cannot be bothered to think of which stop would really be the appropriate one in the context.

Exclamation marks

If you are not writing dialogue, there is little need for exclamation marks. If you feel you need them to pound home your point, then quite likely you are not making good use of the other punctuation marks at your disposal. Play around a bit. Experiment with the sentence structure. See if you can get the same effect by other means.

It's your choice

Unlike grammar, punctuation is refreshingly free of "rules." Within reason you can more or less do what you want. I have not emphasized rules in this article. However, nothing that I have suggested violates the accepted rules of punctuation. If you do want to brush up on the rules, I recommend *Mind The Stop*, by G. V. Carey. This slim volume is a classic of its kind and the Penguin paperback edition can be found in any good bookstore.

A less academic way to brush up on punctuation is to start paying attention to the punctuation of good writers, especially poets. You have to make a conscious effort to do this; bad punctuation sticks out like a sore thumb, but good punctuation controls the pace so naturally that it sometimes renders itself invisible in the process.

Notwithstanding the benefits to be gained by reading, one of the best ways to enrich or embellish your personal style is by trial and error. All you have to do is provide the words-Perfect Writer and WordStar have taken the drudgery out of rearranging them. The exercise is worth it, even if you ultimately decide to dress your sentences in the basic black of commas and periods.

There is nothing wrong with keeping it basic. Consider this passage from *The Real Thing*, the latest Tom Stoppard play to open on Broadway: "I don't think writers are sacred, but words are. They deserve respect. If you get the right ones in the right order, you can nudge the world a little or make a poem which children will speak for you when you're dead." Basic black. Perfect pace (assuming you don't feel the need for a comma after "little"). Noble sentiment. □

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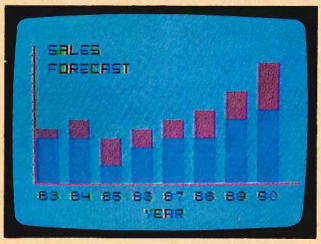

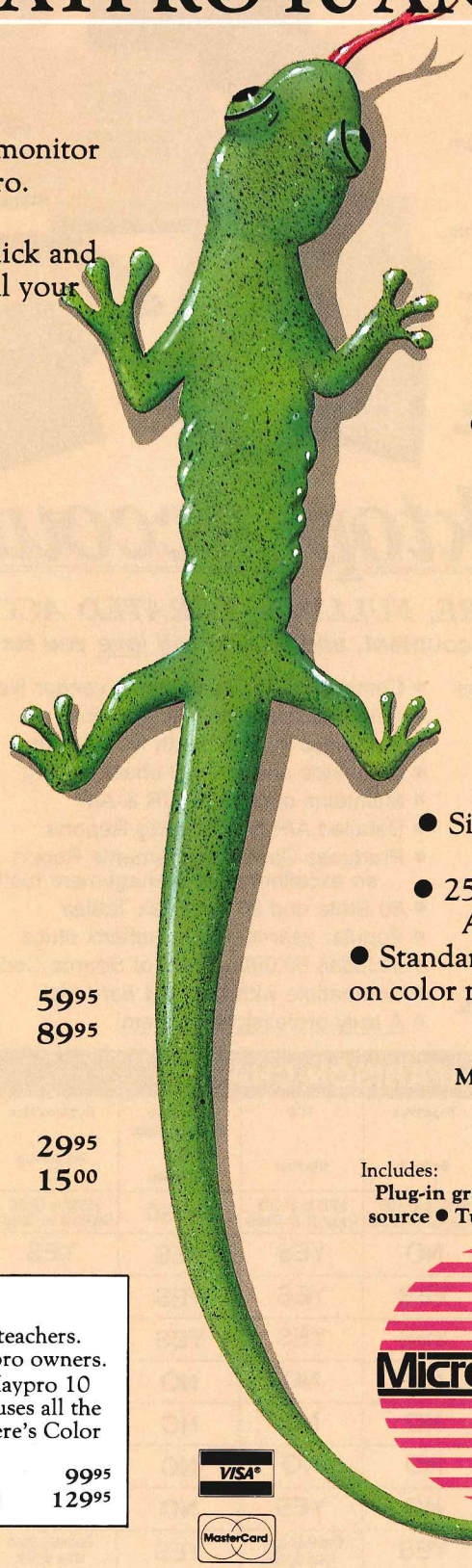

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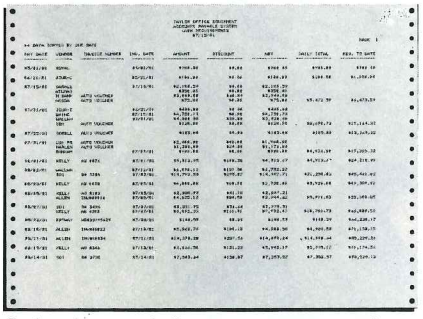

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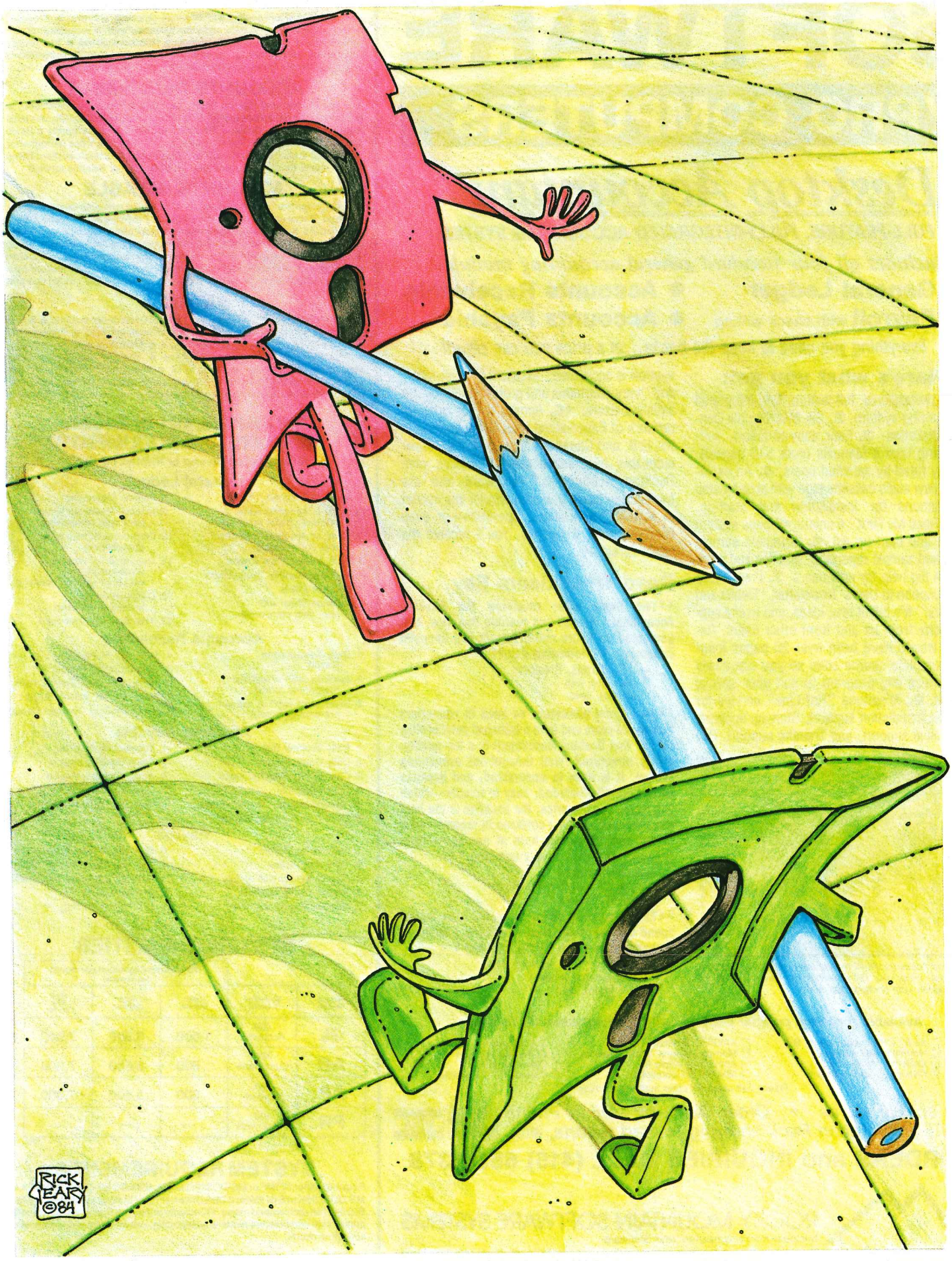
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A Clash of Styles

What two packages can—and cannot—do to improve your writing.

by Anne Wayman-Blick

As I remember it, every night in 4th grade, Sunday through Thursday, I would sit in front of Mom's desk while she drilled me on the week's current spelling list. It didn't take me long to discover the sloppier my handwriting, the less likely Mr. McQuire, my mother, or anyone else would be to discover spelling errors, which seemed simpler than learning the list.

As so often happens, my solution later became my problem. Editors insist on typewritten manuscripts and don't like spelling errors, so when I broke into the writing game I was forced to implore, and sometimes employ, friends who could check and correct my spelling.

I've never admitted it before, but the real reason I bought my first computer was because of the spelling checker.

A question of style

With the popularity of spelling checkers, it's probably inevitable programs would be developed to check style.

As a writer, I view the notion of programs judging the quality of writing with deep suspicion. I've always been delighted by good editing, but I know enough about my computer to be sure it isn't capable of making intelligent comments—I've never considered "BDOS error on B" intelligent, or particularly helpful. Besides, style is a writer's own.

Style usually comes to a writer naturally, if at all, as a result of putting many words on paper. It's that indefinable something separating Anais Nin from a hack, or Douglas Hofsteader from the average computer writer.

Style usually comes to a writer naturally, if at all, as a result of putting many words on paper.

Style has been studied, argued, discussed and written about. It has also been imitated and butchered. It changes from writer to writer, and from era to era.

Unlike spelling, there is no dictionary of style. There are some rules about grammar and word use, and these both affect, but do not create style. The closest book we have to a bible of style is William Strunk Jr.'s thin volume, *The Elements of Style*.

E.B. White, in his 1971 introduction to Strunk's book says about the author, "Will felt that the reader was in serious trouble most of the time, a man floundering in a swamp, and that it was the duty of anyone attempting to write English to drain this swamp quickly and get his man up on dry ground, or at least throw him a rope." Style certainly affects a reader's understanding, and as Strunk himself put it, "The approach to style is by way of plainness, simplicity, orderliness, sincerity."

If draining the swamp for the reader with plainness, simplicity, orderliness and sincerity is the goal, can a computer program help a writer achieve it?

Maybe. Style checkers operate the same way as spelling checkers do. A dictionary of phrases, words and punctuation marks is created, and the computer compares a document to the dictionary. When a match is found, the computer signals the user.

The computer can only check what appears in the program's dictionary. The quality of these

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dictionaries depends on the software company. The usefulness of the dictionaries depends on the program and the way the writer uses it.

Use of a program able to locate extra blank spaces, doubled capitals, unpaired quotes and the like can go a long way toward cleaning up your manuscript, which is certainly a step toward rescuing the reader.

Since computers and programs are not yet capable of comprehension, they cannot tell if your sentence makes sense or reads well. Such judgements are the responsibility of writers and editors. A program can, however, call attention to phrases and words that are typical problems.

Grammatik, from Digital Marketing, and *Punctuation and Style*, from Oasis Systems, are both programs aimed at helping the writer polish prose. They both check for punctuation pairing and spacing errors. And both contain dictionaries of words and phrases that may or may not be a problem.

If you use WordStar, you may use either program. Unfortunately, Grammatik works only with WordStar, leaving Perfect Writer users to Punctuation & Style.

Grammatik

Grammatik, a style checking program by Wang Electronic Publishing, consists of two dictionaries and two utility programs. PHRASES.GMK, the most usable dictionary, has over 500 words and phrases used to judge your manuscript. When it finds a match, it displays the sentence where the problem occurs and a suggestion for improvement. You have a choice of marking the text for future editing, sending the sentence number and the comment to a printer, or telling the computer to ignore the problem.

The second dictionary is SEXIST.GMK, which contains roughly 100 gender specific words. The procedure is the same. These dictionaries may be used together or separately, and you may develop your own dictionaries if you wish.

PROFILE is a program capable of showing you how many times you use each word in a manuscript. Each word in your document is printed, either on the screen or on paper, along with the number of times it was used. The theory behind this is to help you avoid overuse of individual words.

SORTDICT is a utility designed to sort dictionaries into alphabetical order, and may be used for other alphabetizing chores as well.

Putting it to work

Using a draft chapter of a booklet I'm writing, I put Grammatik through its paces.

On the first pass, Grammatik reported 3,756 words in the sample chapter, three cases of doubled words or punctuation, and one unbalanced quotation. This information was displayed in a box at the end of the run, after giving you a chance to mark, print or ignore the problem area as it's displayed on the screen.

For drill, I ran the same manuscript through the Word Count program on the Word Plus. It reported 3672 words. The difference seems to be in the way they treat numbers and hyphenated words. For simple word counting, The Word Plus is easier to use.

PHRASE, which is the style portion of Grammatik, revealed 38 potential problems. The first looked like this on the screen:

A quick belt, a week long bender, or some pills or pot would, for awhile, fill those empty feelings we carried around inside.

--------->awhile - ''M'' - Commonly misused word
Suggestion: a while; awhile=adverb

The sentence is mine, exactly as it appears in the manuscript. The program points out *awhile* is a commonly misused word, and suggests changing it to *a while*. (Awhile is an adverb.) The lack of a space after the semicolon is the program's typo—a bit sloppy perhaps, but not unusable.

I marked it for later change, and also used the print option, which proved helpful.

Another comment looked like this:

In order to stop, we had to seek help.

--------->In order to - ''W'' - Wordy phrase
Suggestion: to

Making the changes

When I had worked through all 38 comments I returned to my word processor and brought up the marked copy of my manuscript. Using the printed copy of possible errors, I discovered you can use a search for **?#**, Grammatik's marking characters, with a blank replace to take you to the first error and found my text looked like this:

A quick belt, a week long bender, or some pills or pot would, for awhile, **?#m** fill those empty feelings we carried around inside.

Affirming the replacement of **?#** with a blank left me with only the **m**, which refers to a commonly misused word, to deal with. The addition of a simple space created *a while*. You will probably want the printed list to help you

notice easily missed typos, like the difference between "awhile" and "a while" on manuscripts you've written. The list also helps make sure you're in the proper location. The numbering of sentences is impressive, but of little value if your word processor, like mine, doesn't number sentences.

My second error was marked with a **?#w** for wordy. This is a fine example of not taking all the recommendations at face value. Although the phrase *In order to* is wordy, I decided that it added to the pacing of the paragraph, so, I deleted the mark rather than changing the phrase. Your choice in cases like this will depend on your own style.

PHRASE.TXT also picked out words it considered vague like very, redundant like later on, and awkward usage like and/or. You may want to make a mental note to use Grammatik on manuscripts you've edited at least once because you tend to purge most of these out yourself.

Reducing sexist terms

Next I tried SEXIST.TXT on the original version of my chapter, and was delighted to receive a score of 0. However, I wanted to see what it would report on an ran a portion of a soon-to-be-submitted romance novel. All gender specific words were dutifully reported in the above manner, which is interesting information, but not much help considering the material tested.

An examination of the dictionary itself revealed a sound selection of alternative terms. For instance, *attendant* is suggested as a replacement for *bellboy*, *relative* for *kinsman*, *representative* for *spokesman* and *guard* for *watchman*. It also suggests *macho* be avoided entirely, *he, her* be revised and doesn't solve the problem of *waitress* at all, but then neither have I.

If you're just learning to purge your writing of sexist terms, this program can be a real help, and it certainly acts as a double check for all of us. I will probably keep the list in my desk dictionary for reference.

PROFILE dutifully listed each word in my manuscript sorted by how often it was used. A real yawn in my opinion.

Punctuation & Style

This program works with WordStar, Perfect Writer and several other word processing programs. It uses dictionaries like Gram-

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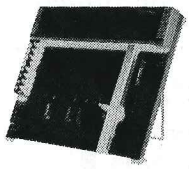

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STYLE
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matik, but they're set up differently.

CLEANUP is designed to do just that, help you clean up your manuscripts by pointing out extra spaces, unpaired quotes, doubled words and problems in capitalization. WordStar users will delight in its ability to locate unpaired print commands.

It does this with the help of two additional dictionaries, ABBREVS.TXT, which is a file of abbreviations, and CAPSEX.TXT, which is a short file of exceptions to capitalization rules, like the name JoAnne. Both dictionaries can, and probably should be edited to fit your own writing. This can easily be done with your word processor.

You may find using CLEANUP a bit easier than Grammatik, except for the devilish business of remembering to signal for double-spaced manuscripts—otherwise Punctuation & Style considers every new line a capitalization error. Using CLEANUP.COM on the same sample chapter, revealed one more spacing error than Grammatik had shown.

Roadblocks

The style portion of the program is one you'll either love or hate. PHRASE takes a hard look at eight categories called Roadblocks. These are cliches and awkward, erroneous, folksy, muddy, pompus, redundant, and wordy phrases.

The manual describes each in detail and includes the default list of phrases. The phrases may be edited with any word processor.

The manual itself is not a bad guide to good writing, which is above and beyond the duty of a software manual. The author is clear about the value of the program, saying, "You should remember not to take PHRASE's advice too literally." This is true of all style checkers.

The program is harsher than Grammatik, and although it called 42 areas into question, it didn't always pick out the same problem. Just another example of the nature of style—there often is no right or wrong, rather just an opinion. Punctuation & Style's first example looked like this on the screen:

FINALLY: LASTLY

[Finally,] our drug of choice turned on us, often causing us; to seek the solitude we had before avoided.

Often the suggestions made reveal the computer's inability to understand the meaning of a sentence. You may have good reasons for using wordy or folksy phrases, although such use should be conscious.

PHRASE questions the use of "Finally", displaying the word in question and the suggested replacement, followed by the whole sentence so you can see it in context. As with Grammatik, you can mark, ignore or print the comment. Like Grammatik, PHRASE didn't like my use of "In order to". Editing is done with your word processor.

(continued)

Refuse to automatically take the program's word for anything.

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STYLE
(continued)

Punctuation & Style also has a dictionary to check use of passive voice. Slipping into passive voice can be a problem, and usually results in dull writing. Generally, readers prefer the active voice because it's more immediate. For instance, *Joan used the computer* is (marginally) more interesting than *The computer was used by Joan*. The manual offers a surprisingly clear discussion of the passive voice.

Running another, virgin, copy of my now well-examined chapter, with PASSIVE.TXT resulted in locating 284 uses of past participles used with an auxiliary form of the verb to be, which called 85 sentences into question.

I was appalled by the number. However, examination revealed roughly half of these instances had been deliberate use on my part of the past tense. (Whew!) For the most part, I disagreed with the rest of its accusations—again, often a case of arguing red is a better color than green.

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Summary

Can a style checker benefit your writing? Probably. CLEANUP will probably become a staple of mine like THE WORD PLUS.

As a professional I know my writing can always be improved, and I wish I'd had these programs when I was first learning to put words on paper. Of course, I wish I'd had a computer instead of a typewriter back then too.

Punctuation & Style does a more thorough job of checking, and the documentation, although not perfect, is much easier to use. It's also handy to have solid information about writing in the same book. The manual for Punctuation & Style could be used without a program as a writing aid.

Grammatik's manual is obtuse about the program's operation and offers no bonus of helpful information about writing.

Either program could help you learn the fundamentals of writing, but neither will turn you into Alice Walker or Thomas Wolfe. Off-hand I would say if your writing is doing the job you want it to, you can probably skip both these programs. Of the two, I think Punctuation & Style offers more for the long haul.

If you do you use one or the other, remember the limitations of your computer, and refuse to automatically take the program's word for anything. Word processing software offers ways to

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help you get words on paper, but the words, and the way they're used are your responsibility.

Punctuation & Style by Oasis Systems, 2765 Reynard Way, San Diego, CA 92103 $125.00 list, available at dealers and through mail order.

Grammatik by Wang Electronic Publishing,$75.00 list, available at dealers or through Digital Marketing, 1 (800)-826-2222. Also available as part of Digital's Writer's Pack™ which also includes Random House Proofreader, and Pro/Tem's Footnote, Pair and Bibliography, $295.00 list. □

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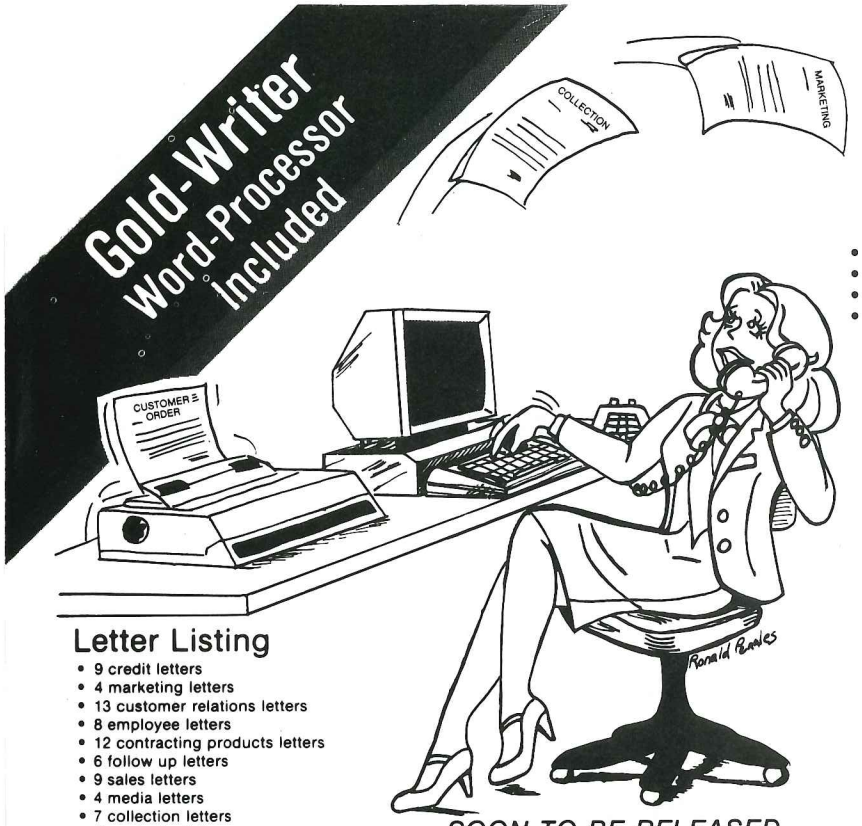

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Three on Perfect Writer

A review of two books for beginners, and one for advanced users.

by Anne Wayman-Blick

If you've visited a book store lately, you're well aware the publishing industry has recognized that people interested in microcomputers are hungry for information. The result is a plethora of how-to books about hardware and software, each promising to make its subject as simple and reliable as using a telephone. As might be expected, some of these offerings are well done, accurate and helpful and some are not.

We suggest you keep the following in mind before you spend another $15 or $20.

- Have you thoroughly explored the manual that came with your hardware or software? There's no point in buying a third party book if the manual will work for you instead.

- Does the book you're considering address Kaypro computers directly? If it doesn't it may not have as much value for you as one that does.

- Does the Table of Contents indicate the book is well structured, taking you from the simple to the complex?

- Check the information about the author—does the writer seem qualified to handle the subject?

Finally, does it have an index? If not, with few exceptions, it's probably not worth buying. Make sure the index seems to reference the instructions or explanations you need. If it does, read through a few of these before you buy to make sure you understand the author's style and the information given.

If the book in question fits all or most of these categories, you probably won't feel your money is wasted when you get home and use it.

Perfect Guide to Perfect Writer by Donna Z. Meilach

If you're new to Perfect Writer and find the manual obtuse, this may be the book for you. Meilach assumes the reader knows little about computers and word processing; in fact she cautions the reader about not expecting too much too soon.

The first three chapters are devoted to an overview of CP/M, making back up copies, installing the software, booting, naming files, and other basic information usually left to manuals. The balance of the first section deals with creating, saving and simple editing of short documents using Perfect Writer. Again, the treatment is basic, from explaining the movement of the cursor space by space, through larger moves such as paragraph by paragraph. Some of Perfect Writer's unique features, such as switching between upper and lower case and working with windows and buffers are lucidly explained.

Part II deals with formatting and printing. Although the section is brief, examples and graphics combine to give a good, basic understanding of how to get a document on paper. By the time you work your way through the first 166 pages, you'll be able to turn out simple documents. If your word processing needs are limited to basic business letters and short reports, you may be able to stop here.

The next hundred pages are devoted to more sophisticated use concerning items like type-

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face commands, page numbering, document design, headings and footnotes, handling of long documents and @STYLE commands. As an introduction to advanced use, Meilach presents accurate information without much depth. Again, depth may not be necessary, depending on your use. Writers of articles for consumer publications and trade books without extensive formatting problems will find this section sufficient.

The final chapter in the book is a guide to Perfect Speller. Because Perfect Speller's dictionary is created by listing word roots and allowing prefixes and suffixes, it has a potential for inaccuracy that is not addressed in Meilach's book. Her description of using the program is far better than the manual's, however.

Six appendices include an expansion of the aforementioned information about CP/M, installation, and a quick guide to CP/M and editing commands, printer configuration and previewing documents. If you're having trouble configuring your printer, this section may or may not help, depending on your printer—look at it closely before you buy.

If you've solved many of your problems with Perfect Writer this book is not for you. But Meilach's book can go a long way toward making the manual understandable for those who find it confusing.

Perfect Writer Made Perfectly Clear by Elyse Sommer.

This is another book trying to help both the beginning as well as advanced users. It moves more quickly than Meilach's book however, promising to teach you how to turn out your first document in less than 30 minutes. It's not a simple first document either. Preset tabs are changed, files called up, word-wrap invoked, cursor movement is covered, as is saving, controlling page numbering and formatting and printing a document as it appears on the screen. Indeed, this may be enough information for many casual users.

The text is interspaced with procedures and exercises, aimed at beginning, intermediate and advanced users, set off typographically. This set-up allows you to pick and choose from the information. If you know how to format disks, for instance, you can skip that portion, but it is covered if you need it.

The first section attempts to take you from simple to more complicated word processing tasks. The order of presentation has a certain logic, although the argument could be made that split screen editing should show up before the (excellent) chapter on trouble shooting.

Sommer includes a chapter devoted to housekeeping with CP/M and then concludes the section with Perfect Speller. Although she makes no mention of Speller's potential spelling problems, she does discuss several other spelling programs.

The second section of the book is devoted to Perfect Formatter. As she points out, Formatter is powerful and she handles the complications well. Recognizing that many users will work with standard or default formats, she starts there and gently leads you as far into customizing as you want to go.

A chapter on personal and business correspondence offers hints on the various ways boilerplate can be used with specific examples, including a look at keeping your own resume up-to-date. This approach to specific applications is left out of manuals and many books, forcing the user to re-invent them when the need arises.

What I like best about this book is the way it's laid out. The format, with examples, tips, and lists set out from nearby text, is extremely helpful. Usually if I get close to the area of interest, I can visually and quickly find the rest.

I was unable to determine if the book will have an index—if it does, it will be a good choice.

Perfectly Serious . . . An in-depth look at Perfect Writer by Kristin Farry

If disk formatting is a technical term and you barely know how to bring up the Perfect Writer Edit menu, skip this book for now. But if you want to push Perfect Writer to its limits, this is probably what you've been looking for.

Farry entered the microcomputer business with an understanding of hardware and software. As her examples show, she not only speaks computerese, but has played with fiber optics and flight control. (Her examples are taken from her own technical work, and make interesting reading for the curious.) Each example does a good job of showing you the results you're trying to achieve. As she says in the introduction, "If you are in this class of 'non-trivial' users, this book can increase your Perfect Writer word processing power tenfold."

Don't let her technical background frighten you though. Her writing style, aimed at the rest of us, is clear and easy to follow.

She takes the view that Perfect Writer is almost a programming language, and proceeds not only to tell you how to make it perform, but why it performs the way it does. The result is you

know roughly why something is working, which lets you experiment with reasonable chance of success.

Farry begins with the "subtleties of Perfect Writer grammar and command uses that are not covered in your user's manual." From her point of view, user defined variables are much more useful than the manual would lead you to believe and her explanations and examples are crystal clear.

Her descriptions of how variable manipulation can be used on Perfect Writer's predefined counters (like page, chapter, section, etc.) gives you real control. By the time you've finished working through the first section you'll have, maybe for the first time ever, a sense of what Perfect Writer's really all about.

Part II deals with specific applications for serious users. She kicks this off with details about the handling of long documents, including formatting and printing. Footnoting, placement of figures and tables within the text, and the shortcoming of Perfect Writer's automatic note system are discussed, with workable alternatives presented.

Part III deals exclusively with using alternate alphabets. For those who need to use foreign alphabets, this section alone makes the price of the book money well spent.

There's no index, a sad mistake in my opinion, but this book is an exception to the index rule above. The table of contents is clear and detailed, and an extensive List of Examples make it easy to find what you need. □

Perfect Guide to Perfect Writer, by Dona Meilach, Howard W. Sams & Co., Inc., 340 pages, paperback, $16.95, at bookstores now.

Perfect Writer Made Perfectly Clear, by Elyse Sommer, Chilton Book Company, 192 pages, paperback, $12.95, available in late May 1984.

Perfectly Serious . . . An in-depth look at Perfect Writer, by Kristin Farry, Win-Com, available at some dealers for $19.95 and by mail order from Box 106, Waynesville, OH 45608, at $19.95 + $2.00 postage and handling. Paperback with spiral binding, 192 pages. □

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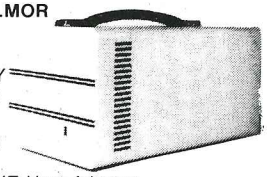

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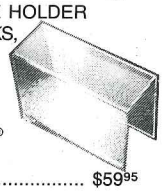

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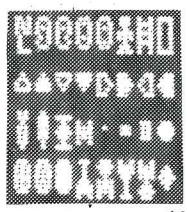

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Printing With Perfect Writer

Putting your printer's power to work — part one of a two-part series.

by Kristin A. Farry

Ask any software entrepreneur what his worst nightmare is and he'll probably say "keeping up with the printer industry." A recent count revealed more than 160 different models available.

Fortunately, word processors deal with a fairly limited and standard data set (the alphabet) so it's possible to isolate most of the specialized printer drive software from the general word processing tasks such as document layout. Perfect Software, Inc., escaped much of this nightmare by providing a printer configuration program which allows the user to tailor the printer interface portion of Perfect Writer to many different printers. To get people started, configurations for a simple generic printer and some more complex popular printers are also provided.

For those who happen to have one of the predefined printers, setting Perfect Writer up consists of merely telling Perfect Writer which definition to use. Those who have one of the other 150+printers available have some homework to do. Unfortunately, the users' manual assumes that you know a lot about how printers think or have a clear, well-written printer manual. Since the latter is virtually non-existent, this is a combination that can lead to some headaches for the new user.

Every cloud has a silver lining, however. The Perfect Writer printer configuration options allow the user a great deal of flexibility and it eventually pays to learn how it works. Even if you have one of the predefined printers, you'll soon find reasons to change these stock device definitions. For example, you might want to print your documents in a 10-character per inch (CPI) pitch and your programs in a 17 CPI pitch. You can insert command strings in your printer definition to switch your printer from 17 CPI to 10 CPI at the beginning of a document, and back to 17 CPI at the end. Or you may find a printer definition for envelopes or odd sized paper useful. You may also want to control the spacing between sentences, substitute some characters for others, or put accents over characters.

You will find it worthwhile to consider the customization possibilities.

Pieces of the puzzle...

First, let's look at how the pieces of Perfect Writer work together. The word processor consists of three somewhat independent programs—PW (Perfect Writer's editor program), PF (Perfect Formatter), and PP (Perfect Printer). PW, the editor handles the entry of the manuscript and formatting commands into the .MSS manuscript file.

Perfect Formatter chops the text in the .MSS file into lines and pages, sets up pageheadings or footings, and arranges the footnotes and table of contents. These things depend on your paper and printer's character size, as well as your stated preferences for margins, indentations, etc. If the formatted output is heading for PP, PF also *places flags in the text wherever special printer control codes are required* (i.e. between words, at line and page breaks, and where boldface and italics are specified).

Perfect Printer simply dumps the contents of the .FIN file to the

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printer, adjusting word spacing for right justification and replacing Perfect Formatter's flags with the appropriate printer control codes, which depend on your printer's design. This division of labor between Perfect Formatter and Perfect Printer explains why commands such as boldface and italics are ignored when you bypass Perfect Printer with the quick printoption of Perfect Formatter.

Perfect Software placed nearly all command specifications that depend on your printer's physical properties, as well as document layout parameters that depend on individual tastes, in a data file separate from PF and PP so that you would not have to change the word-processing programs themselves to alter them. This data file is PF.DAT which is actually a group of tables. One table contains style defaults governing document layout. Sixteen other tables (one for each printer defined) contain information on printer idiosyncracies. A few additional tables are included to handle particularly awkward printer interfacing problems—proportional character pitches and non-standard character codes. If a printer definition uses a proportional character pitch instead of a fixed pitch, Perfect Printer will use a character width table in PF.DAT to compute word spacing for right justification. A few printers do not use standard character codes; if so, Perfect Printer must consult a translation table (also in PF.DAT) to convert the character codes it uses into those used by such a printer. PF.DAT also has a two entry table telling Perfect Formatter what the default printer and console definitions are.

You can change any entry in these tables with the program PFCONFIG.COM, which is on the Perfect Writer installation disk provided with your Kaypro.

Running PFCONFIG

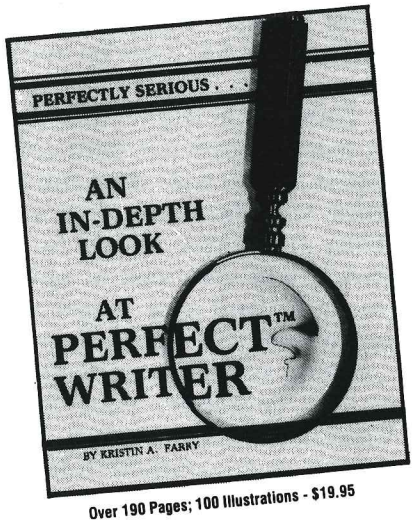
PFCONFIG is very easy to run, as it is a totally menu-driven, fill-in-the-blanks program. There are two potential tripwires, however, that you should be aware of before you start.

First, the version number of PFCONFIG must match that of the PF.DAT file being altered (and the PF.DAT version must match that of the PF and PP versions used), because Perfect Software has made some changes in the structure of PF.DAT since Perfect Writer was first introduced. This is not a subtle thing—PFCONFIG will tell you if the versions are inconsistent. This will not be a problem if you stick to the software that came with your computer; if you do decide to update to a later version, make sure you get a complete Perfect Writer set.

Second, PFCONFIG modifies the PF.DAT file on the *currently logged* drive or user area. More than one new user has run PFCONFIG many times without seeing any changes simply because PFCONFIG was changing the PF.DAT file on the installation disk, not the PF.DAT being used by PF on his working disk! If you have the space on your PW working disk, copy PFCONFIG onto it—it will save a lot of disk shuffling. If you are using a Kaypro 2, you won't have enough space on the PW edit disk to do this. Instead, put your PW edit disk containing the PF.DAT file to be altered in drive A, and put the installation disk with PFCONFIG into drive B. Then, run PFCONFIG while logged onto drive A. To help you avoid the latter pitfall, the first question PFCONFIG will ask is "Do you wish to exit and change disks?"

(continued)

New Wrinkles Perfect Software Didn't Mention About Using Perfect Writer



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All of these problems and dozens of others are now answered. **Perfectly Serious: An In-depth Look At Perfect Writer™** by Kristin A. Farry is an indispensable, applications-oriented supplement to your Perfect Writer User's Manual. Over 190 pages of informative text and real-life time saving examples help the Perfect Writer user through day-to-day word processing hassles.

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If your program is in B, a "yes" answer here will send you back to CP/M. A "no" answer will send you to the PFCONFIG master menu.

This article will focus on master menu option 2 (Define printer types). Part II will cover options 4 (Edit translation tables) and 5 (Edit character width tables). Part II will also look at option 1 (Input/Output port usage); in the meantime, you can ignore option 1 as long as you are using the CP/M LST device for your printer. Option 3 (Select Perfect Writer default style parameters) is left as an exercise for you, since it is quite easy to use; it enables you to change entries in the default document layout table—things like margins, note position, spacing between paragraphs, etc. (The not-so-ambitious will be relieved to find out that most of the layout defaults can be overridden with a @STYLE directive in the .MSS file.) Note that any style setting affects your document no matter what printer definition you use.

Predefined Printers

Selecting master menu option 2 gives you the printer definition menu. A logical first step is listing the currently defined printers. There are sixteen predefined printer devices. Some explanation of these can be found in Appendix A of your manual (pages A-27 through A-30 of the older manuals; pages 292 through 294 of the newer ones). Pay particular attention to the descriptions of the vanilla device; it is the designated default on your master disk as configured by Perfect Software.

Some of these printer definitions are identical except for the character pitch—for example, Diablo 10, 12, and PS definitions are all intended for the same physical Diablo-type printer, but each initializes the printer to a different character pitch. The same is true of the multiple Spinwriter and Centronics definitions.

It's quite likely you won't find your printer on this list. Don't give up yet, however. While there is very little standardization among dot-matrix printers, quite a few letter quality printers are either completely or partially Diablo compatible. Check your printer manual carefully—if it is Diablo compatible, the manual will usually say so in the introduction. Some partially compatible models compromise on proportional space modes, so Diablo 10 or 12 might work, but not Diablo PS. Also, some may differ on synchronization protocol. Some Spinwriter owners (models 5515, 5525, 7715, and 7725) may be surprised to find their printer thinks it's a Diablo and prefers the Diablo definitions to those provided for Spinwriters.

To decide if one of the predefined definitions matches your printer, create an .MSS file and try formatting and printing it for several different definitions with the "send output to device other than default" option of Perfect Formatter.

Two definitions or devices on the list—console and file—actually have nothing to do with your printer. "Console" is defined for the console output option of Perfect Formatter, while the file device creates a file containing your formatted document that can be read by programs other than Perfect Printer.

Changing the default devices

When changing the default devices, PFCONFIG will first list the current defaults for both console and printer output. Until you are more familiar with the configuration process, you will probably want to leave the console default as "console." Note that, when PFCONFIG asks for the new defaults, *you must type something in for each output specification, even if you don't want to change the current default.* If you type in only a carriage return, the corresponding entry in PF.DAT will be left blank and PF and PP hang up searching for a device with no name.

For the not-so-lucky

Even if you can run your printer with one of the provided definitions, you will find it worthwhile to consider the customization possibilities. There are 24 parts to the printer definition. Changing one of these parts is as simple as typing in the corresponding number and following the instructions that appear.

Those who have to develop a completely new printer definition should consider two approaches to the configuration process. The first is modifying an existing definition (such as the vanilla device) with menu option 3 (Update an existing printer definition). The second is starting from scratch with menu option 2 (Define a new printer type). The first approach is recommended for your initial experimentation since you can deal with one piece of the spec at

(continued on page 74)

Printer manuals (with only a few exceptions) are unbelievably unfriendly.

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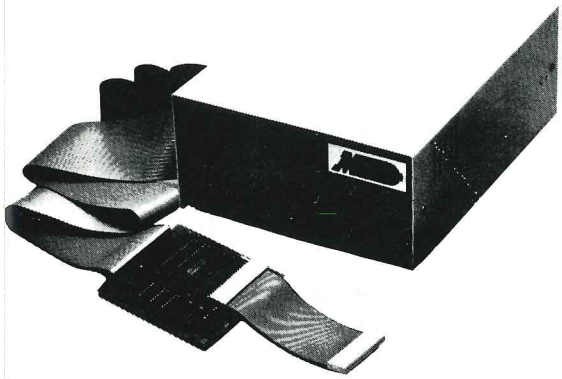

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a time. Even though your vanilla configuration may require extensive modifications, it provides a working baseline to build upon bit by bit.

The nice thing about starting from scratch with a new definition is that you can give it an easy-to-remember name. (Otherwise, you may find yourself staring at the PF menu wondering "Did I redefine Plain for the 12 pitch or was it Epson?") If you decide to go this route (perhaps after experimenting a bit with modes of an existing definition), note that PF.DAT can hold *only* 16 printer definitions. You must delete one of the existing ones, using printer menu option 4 (Delete a printer definition), *before* you can add a new one with option 2.

Before you attempt any printer definition modifications, however, you have to get acquainted with your printer.

You thought software manuals were bad...

Your first discovery will be that printer manuals (with only a few exceptions) are unbelievably unfriendly. Perseverance pays off eventually, however. Hiding somewhere amid the interface specifications, data protocols, and DIP switch settings are two key tables or sets of tables. The first of these is simply a listing of your printer's entire character set or sets, indexed according to the code number that activates each one.

The character code set used by 99.9% of all printers is ASCII (American Standard Code for Information Interchange). The codes range from 0 to 127, where 31 through 126 correspond to "printing" characters (capital and lower case alphabet, digits 0 to 9, and some miscellaneous symbols) and the rest are control characters (carriage return, tab, etc.). Chances are, unfortunately, that the manual lists these codes in hexadecimal form. Unless you need PW's character translation or width tables, however, you don't have to convert them to decimal, since you can type in the appropriate characters from the keyboard. For the initial printer configuration work, you'll be most concerned with the ASCII control codes below 27. These are entered by typing CTRL and the code's corresponding letter simultaneously. The letter corresponding to ASCII 1 is A, ASCII 2 is B, and so on to Z. Thus, a carriage return is CTRL-M, backspace is CTRL-H.

The second set of tables to look for (probably entitled "Function Codes" or "Control Codes") explains how your printer responds to each control code. This is not as straight forward as it seems. Some printers do not recognize backspace, or respond to a carriage return code with a return and a linefeed. To make matters more confusing, an individual printer's response may vary with the position of hardware DIP switches.

The ESCape code (ASCII 27) is frequently used as a flag to tell the printer to interpret the ASCII code that follows it as a character pitch change, typestyle conversion, or complex carriage movement command. For example, the sequence ESC-P may signal the printer to convert to pica pitch, while ESC-A turns on its boldfacing mode. Unfortunately, these escape sequences are not standardized at all.

One way to acquaint yourself with your printer's capabilities and escape codes is to return to CP/M and toggle your printer on with a CTRL-P. Type an escape sequence out and hit return, then list a short file to the printer to see the command's effects.

Defining a new printer

Now you have the essentials for survival. Remember, if you opt to create a new printer definition from scratch, you must first delete an existing definition to make room for it. Select option 2 (Define a new printer type) to begin. PFCONFIG will ask for a name for the new device and then bombard you with questions. Early Perfect Writer manuals do not bother to tell you what these questions are; later manuals provide a listing without explanation. The following will fill in some of the gaps in both. *(We suggest you bring up PFCONFIG as you read this.—ed.)*

The resulting .FIN file can be displayed on your CRT or sent to your printer from CP/M.

The first 2 questions refer to the size of the paper. You can make a different printer definition for each paper size you use. Alternatively, you can specify your most commonly used paper size here and use @STYLE commands to change it for specific documents in the .MSS file. Note that this is the *only* printer definition spec that can be overridden by a @STYLE command.

Question 3 asks you to define the width of a standard character. In fixed pitch definitions, PF uses this entry to figure line breaks. If you specify a character width table, this number is used whenever a measurement is

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given in characters, as in @Style commands. Since many such commands are translated into spaces (i.e. margin setting, indentation, etc.), this should actually be the width of a space.

Next, in question 4, you're asked to name the height of a single-spaced line. PF uses this entry to place page breaks.

The smallest horizontal and vertical resolution or movement is addressed in questions 5 & 6. This information is used for microspaced right justification and sub-/superscripts if your printer is one of those that PP has microspacing or microfeed information on (specified in item 11). If your printer is not one of these, enter the same numbers here that you used for questions 3 and 4.

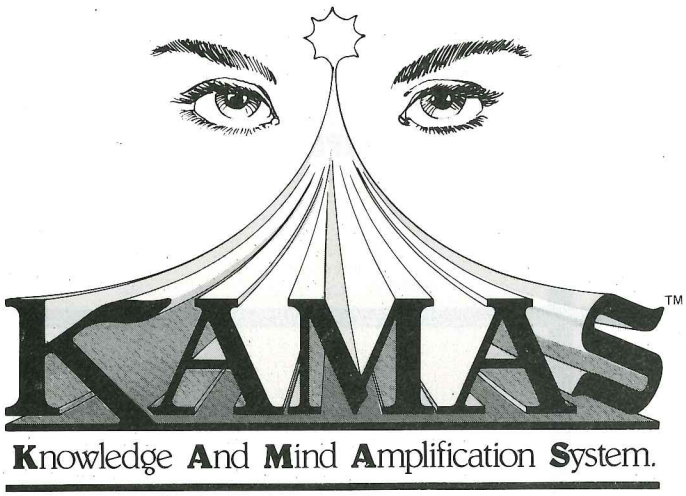
Question 7 asks if you're using proportional spacing. This is not required for fixed pitch definitions; enter no and stay tuned for Part II for more information.

You can produce either files that are readable online, or files in a special, intermediate format, depending on how you answer question 9. If this entry is no, PF assumes the finished file will be read only by PP. As mentioned earlier, PF separates words, lines, fonts, etc., with special flags which alert PP to the need for printer-specific command strings. These flags are codes outside the regular ASCII set and would cause chaos on your CRT or printer if dumped directly to them. To protect you from this, the .FIN files made for PP have an end-of-file marker inserted between the header (the file name and device specification) and the text. If you try to type one of these .FIN files while in CP/M, you will get only the header.

If PF finds a yes answer to this question, it does not put these flags or the device specification/end of file in the .FIN file. It also ignores all underline, font change, and script commands. The resulting .FIN file can be displayed on your CRT or sent to your printer from CP/M. It can also be examined with the PW editor, which is a very convenient way to proofread a file and see where the page breaks occur without printing it.

If you opt for "online readable" .FIN files, PFCONFIG will stop the configuration questionnaire at this point, since PF doesn't use the printer-specific information in items 10 through 24. If you convert an existing definition to online-readable output, PFCONFIG will erase items 10 through 24. This can be a traumatic discovery if you have worked long and hard getting those items just right. The only way to get them back is to change the online-readable option to no; PFCONFIG will then ask you for each item just as in the original configuration process. Consequently, you'll want a separate printer definition for generating a proofreading file. Before you create your own, take a look at the definition named *file* provided by Perfect Software. It's set up to produce online-readable output on 8-1/2" by 11" pages with 10 characters per inch. Try adapting its page size and character pitch to match that of your favorite printer definition.

Question 10 allows you to specify the distance beyond the last page boundry after printing. Since the paper bail on most printers is some distance from the actual print head, being able to specify an offset is nice. Sup-



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posedly, the top margin will be reduced by the distance specified here. Keep in mind that the top margin is initially set at only 1/2 inch. If you don't use pageheadings, it may appear larger, because the headerspacing is also 1/2 inch. PP will not encroach on the headerspacing no matter how large an offset is specified. Furthermore, if you have told PP that your printer responds to a formfeed (question 14), you will find that the offset specification is useless unless the printer's top of form position is always set on the paper perforations at the print head, *not* even with the paper bail (which would be much more convenient). You will get more predictable behavior if you zero the offset and adjust your margins to accomodate the paper offset (i.e. reduce the top margin and increase the bottom margin by the offset amount).

The fractional line and character movement of certain printers are supported by Perfect Writer. Item 11 lists these printers, and asks you to enter its number. As long as you remain in a fixed pitch, you can get by with choice 1. Other choices are not essential for survival.

Backspacing and carriage returns are addressed in questions 12 and 13. Perfect Printer uses the answers for underlining. If you answer no to both of these questions, PP will not be able to reverse your printer and will ignore underlining commands. If 12 is yes and 13 is no, PP uses a string of backspaces to move the print head backwards to the underline starting point. If 12 is no and 13 is yes, it uses a carriage return to put the head back at the beginning of the line and then spaces forward to the underline starting point. If both questions are answered affirmatively, PP tries to be efficient and uses backspaces to reach underlines occurring in the latter half of the line and the carriage return for those in the first half. Many printers backspace rather laboriously and it may be faster to use the carriage return for all underlining, even if your printer can backspace.

The 14th question deals with advancing the paper to the top of the next page or form. If answered no, PP just sends a string of new line commands to position each new page for printing. This may be slower than a form feed, but the offset specification (item 10) will work correctly.

The need for a synchronous protocol is addressed in 15. This entry tells PP how to feed your printer. Typically, computers are much faster than printers; the printer may need a synchronization protocol to notify the computer when its buffer is full and when it is ready for another batch of characters. Parallel printers do this by changing the voltage on a control wire in their cable which can disable the interface and hence require no software assistance. Serial printers do not always have the luxury of extra control wires in the interface to use for this purpose. Instead, they send control characters to the computer over their data lines to start and stop the transmission. The X-ON/X-OFF characters (often designated DC1 and DC3 in manuals) are most commonly used for this. A few printers use ETX and ACK instead. Some use either pro-

(continued)

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tocol, depending on a DIP switch setting. Check the serial interface section of your manual to sort this out.

The need for special translation of the character set for certain proportional printers is handled in item 16. This is also a non-essential for most printers.

Control Codes Miscellanea

Questions 18 through 24 require the entry of control codes and escape sequences found in your printer manual. To enter some control codes, you may have to type CTRL then the desired code. Control codes will appear as ^ followed by their corresponding letter. (For instance, CTRL-M will be ^M). It is not necessary to use CTRL-Q to enter Escape. It will appear on your CRT as [.

Items 18 and 19 address the initialization and reset strings. The initialization string should set the printer's horizontal pitch to match the character width specified in question 3 and, if necessary, the number of lines per inch to match the linefeed distance set in question 4. Your dot-matrix printer might have a correspondence quality mode you want to use for word processing. If so, add the mode entry command to the printer initialization string and the mode exit command to the reset string. And so on.

Some smart printers require an additional mode change—conversion from a logic-seeking, bidirectional print mode to an incremental, unidirectional mode. In their logic-seeking mode, these printers attempt to clean up blocks of text as they are received to improve printing efficiency and speed before printing. Sometimes their efforts conflict with Perfect Printer's idea of how a printer should work. Also, the printer may ignore certain control characters (such as backspace) in the logic-seeking mode. The result may be messed up right-justification and misplaced underlines. Unfortunately, the incremental or verbatim modes (in which the printer types characters in the exact order received) is slow, since it is unidirectional.

The way your printer handles carriage returns and linefeeds is addressed in item 20. Before answering this question, check the DIP switch specification in your printer manual—the switch settings may alter your printer's response to a carriage return.

The ability to turn on and off boldface and italics without affecting character width is the subject of items 21, 22, and 23. The @Boldface and @Italics commands are typestyle or font changers. Their usage need not be restricted to boldfacing or italicizing text, however. PP doesn't care what the boldface or italics command strings in PF.DAT are; it simply copies them to the printer whenever it encounters a @B or @I flag in the .FIN file. You can specify any combination of control codes or escape sequences for these. Keep in mind, however, that PP assumes that the characters in these command strings do not result in a net horizontal movement of the printer's head; if they do, the right justification will be messed up.

Many printers have some exotic fonts (double-wide, half-high, compressed, etc.) that may seem at first glance to be excellent candidates for italicized text. Unfortunately, the right justification will be messed up whenever the printer switches into a font in which character widths differ from that baseline definition in item 3.

One very useful @Italics command application is printing sub- or super-scripts. Unless your

printer is one of those few that Perfect Printer has fractional linefeed information on (specified in item 11), Perfect Writer's @- or @+ commands place sub- and super-scripts above or below the associated text line. This placement requires extra spacing above or below the line with the sub- or superscript. If this bothers you, try using the italics command to shift the carriage a fraction of a line. Some dot-matrix printers have a sub- or superscript mode; for these, one merely uses the printer's script commands as though they were font-change commands. Printers not so blessed generally have half-linefeed commands that work as well. For example, superscripts require a reverse half-linefeed for the italics on string and a forward half-linefeed for italics off.

On some daisywheel printers, superscripts or special symbols such as ´can be accessed after a "shift-out" (SO) control character (ASCII 14 or CTRL-N) is sent. These printers return to the normal character set when they receive a "shift-in" (SI) command (ASCII 15 or CTRL-O). For such printers, defining the italics-on string to be SO and the italics-off string to be SI may be useful.

Another use of the @Italics command is to place accent marks over characters. Doing this requires that the printer actually backspace and overstrike the target character with the accent. For this task, try defining your italics-on string as backspace (CTRL-H) and leaving your italics-off string blank. With this configuration, Sen@I(~)or will be printed as Señor. Unfortunately, this will throw your right justification off by two characters every time it is used, but the advantages of right justification pale beside the effort of inserting those accent marks by hand! You can always turn the right justification off. There are ways of making your printer overstrike characters without ruining your right justification, but the configuration is too involved to explain here. (For more information on this subject, see the book *Perfectly Serious: An In-Depth Look at Perfect Writer.*—AWB)

Defaults Revisited

Now all you have to do is make your new printer the default and get back to work. But before you leave PFCONFIG, take a look at the console default, the device used as a guide when you use the "send output to console" option on the PF menu. This is a document preview aid. Like the file

(continued)

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PFCONFIG
(continued)

definition, this definition is set up for online-readable output. As it comes from the factory, however, the console definition chops your document into CRT-sized pages (8 by 4 inches) of 10 pitch lines. This may be convenient for finding typos but does not tell you where your final page breaks will be. You can change the papersize and character width to match that of the printer definition you wish to preview, even specifying a character width table for proportional pitches. Formatting to console will then show the line and page breaks as they will appear in the printed document.

Note that changing the console definition does nothing magical to your CRT. It holds only 80 characters per line, spaced 10 perinch, no matter what you do with the console definition. This means that the elite or proportional pitch lines are longer than they would be on paper and their ends will often be wrapped to the next line. In spite of this, your line and page breaks will be accurately portrayed.

Alternatively, you can forget the console definition and assign a printer definition to the console output default. You don't gain much more than convenience from this, since Perfect Formatter ignores the features in items 10 through 24 of the printer definitions.

The final step

Now, copy the finalized PF.DAT to another disk and put the copy away with your software masters . . . disks have been known to fail (usually the night before your report is due). You don't want to have to do this over! □

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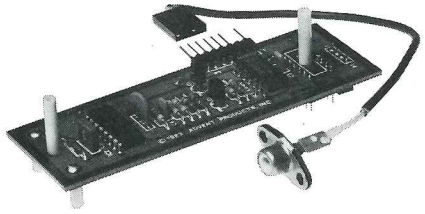

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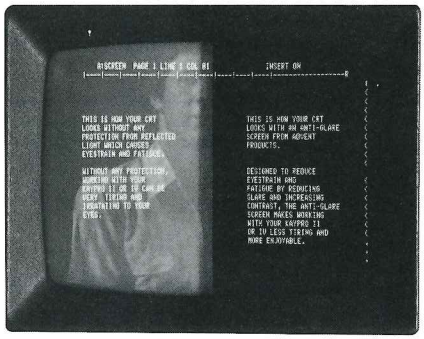

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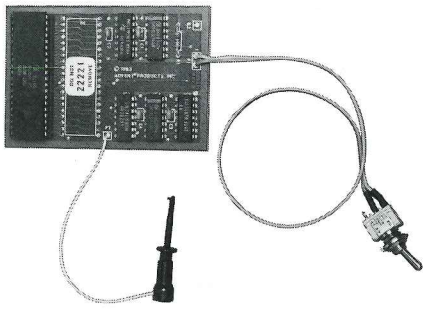

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S-BASIC Data Files—Part II

The series continues with an introduction to sequential access.

by Tyler Sperry

Four months ago, the first article in this series introduced the subject of data files. The plan had been to cover sequential access to data in part II, and random access in part III. Given the nature of the subject (and the space available), this article will introduce some uses of sequential files and the READ statement and leave some topics like the FILES and WRITE statements until the third installment.

To put on my editor's cap for a moment, this article is a good example of why PROFILES does not have a column devoted to S-BASIC: adequate coverage at the introductory level requires too much space. By the time we have covered data files in this series, at least four issues will have gone by. The alternative we prefer for the magazine is running articles on different aspects of the language. Thus, next issue will have an article (written by someone else!) on the topic of S-BASIC functions and recursion as well as the next installment of this series. Eventually, this series and other articles will be collected in the yearbook mentioned elsewhere. —TS

Our story thus far . . .

In the first part of this series we discussed the topic of data files and the conventions of CP/M. To recap briefly, data files are simply collections of data on disk. While these files are often differentiated as either binary or text files, the nature of the information stored in a data file is left to the creator; it is not uncommon to have binary files that contain portions of text as well. There is a convention that text files contain only ASCII characters and use a CTRL-Z to indicate the end of the file, but as we'll see below, this is only a convention.

In contrast with the text files created by programs like Perfect Writer and CP/M's ED, the files generated in the normal use of WordStar are not limited to the 7-bit ASCII characters. The text files created in WordStar's document mode use the eighth bit of some bytes to control formatting. This can lead to interesting results if you have one of the newer Kaypro models with graphics capability and try to look at a WordStar document file by TYPEing it. It just so happens that the Kaypro interprets that set eighth bit as a command to display a graphics character. The resulting display is interesting, but not all that useful. And it gives us an excuse to play with the S-BASIC program called View on the opposite page.

Given the surprising display of graphics characters mixed with text, if we were to rewrite CP/M's TYPE command, one of the first improvements to ask for would be the ignoring or "stripping" of these troublesome high-order bits. The View program is a simple example of such a "filter" program that uses a file for character input, strips off the eighth bit (if set,) and then displays the result on the CRT.

Once compiled, using View is easy. At the CP/M prompt simply enter View followed by the name of the file you want to look at:

```
A>VIEW MYSTERY.LTR
```

As with TYPE, you can stop the display from scrolling by pressing CTRL-S. (Unlike TYPE, it will require another CTRL-S to start the scrolling again.)

How it works

As (briefly) described in the S-BASIC manual, channel number 9 is reserved for input from the Default File Control Block. If you aren't familiar with the term FCB, don't worry. All you have to know as an S-BASIC programmer is that when a user enters two words at the CP/M prompt, if the second word is a valid filename, S-BASIC will automatically connect that file to your program through channel 9.

(Continued)

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```
REM
REM     VIEW program == Version 0.2
REM
REM     Example of Channel 9 usage.
REM

VAR input.byte, output.byte, EOF = BYTE
EOF = 1AH
INPUT#9; input.byte

WHILE input.byte <> EOF DO
        BEGIN
        IF input.byte < 80H THEN output.byte = input.byte
                ELSE output.byte = input.byte - 80H
        PRINT output.byte;
        INPUT #9; input.byte
        END
END of VIEW program
```

```
REM
REM     Example of DATA statement usage.
REM

VAR i, j = INTEGER
VAR s = STRING

RESTORE
FOR i = 1 TO 7
        READ j
        PRINT  j
NEXT i

RESTORE 0second
PRINT "SECOND SERIES:"
FOR i = 1 to 5
        READ j
        PRINT j
NEXT i
READ s
PRINT s

0first  DATA 11, 12, 13, 14, 15
0second DATA 21, 22, 23, 24, 25
0third  DATA "End of data, and program."
END
```

Channel 9 input is the simplest possible example of using a sequential data file. In the View program, the WHILE loop simply grabs one character after another from our file, and passes them on (after a little processing) to the display. This is the essence of sequential files: you start at the beginning of the file and get one piece of information after another until you reach the end of the file.

While View processes the data file in single bytes because it needs to filter things one character at a time, you can use sequential input for strings and numbers too. In fact, one of the first experiments to perform on View is to change the program to handle strings as input. Once you've done that, it is a simple matter to keep a count of the number of lines you have displayed and pause when the screen is full. By waiting for a response from the operator after displaying twenty lines or so, you can make View more user friendly and stop the mad rush for CTRL-S on long files.

When the party's over

There is a problem with sequential files that is highlighted every now and then with View. Sequential access means starting at the beginning and continuing on until the end. Unfortunately, CP/M is a trifle awkward to work with when it comes to recognizing the end of a text file. View handles the average text file without any problem; whenever it sees a CTRL-Z in a file (1A hex or "EOF" in the program) it simply stops execution and returns to CP/M.

The surprise comes when you have a file that is exactly 128 characters long, or a multiple of that length. Due to the way CP/M handles disk sectors, text files that end exactly on a sector boundary will not have the CTRL-Z appended to the end. While some word processors are careful to always add that CTRL-Z, CP/M, WordStar, and quite a few other programs don't feel obliged to. When you run into one of these text files with View, you will get an error message at the end of the display instead of a clean exit. If you were writing View as a product to sell, you would probably want to add an ON ERROR statement to gracefully exit in that event.

READing DATA statements

It would be nice if one could generalize about S-BASIC and say that you get data from files with a READ statement and data from other places with an INPUT statement, but as you've seen above it's not that simple. Channel 9 provides a loophole for input from disk files, while the time honored DATA statement allows you to READ data included in your program.

I hesitated to touch on the subject of DATA statements in writing this article; there had already been too many delays in getting to the fun subjects of READing and WRITEing. Still, my friend the editor kept pointing at the letters we had gotten from folks having difficulties with the subject, so I wrote the second demo program shown.

For those experienced in BASIC, this program should hold no real surprises. Some integers and a string are stored and then read. What could be simpler? Well, the problems people were reporting will only appear if you start tinkering with this program. There are two rules and a bug to be explored here.

RULE: Always RESTORE your data before attempting to use it.

The S-BASIC compiler is a single-pass compiler, and as it goes through your program looking for syntax errors and other goodies, it stuffs your data into memory using a pointer. Alas, when it finishes with your DATA statements, it doesn't change the pointer to indicate the beginning of the DATA area. Initializing the data pointer is done with the RESTORE statement. You can verify this by removing one or both of the RESTORE statements and watching what happens. Note that you can RESTORE the pointer by using labels on your data. This information is in the manual, but easy to overlook.

RULE: Keep all your DATA statements together.

The pointer S-BASIC uses in compiling the DATA statements is used with other statements as well. As a result, you cannot break up your DATA statements with anything other than a blank line. Even a simple REMark state-

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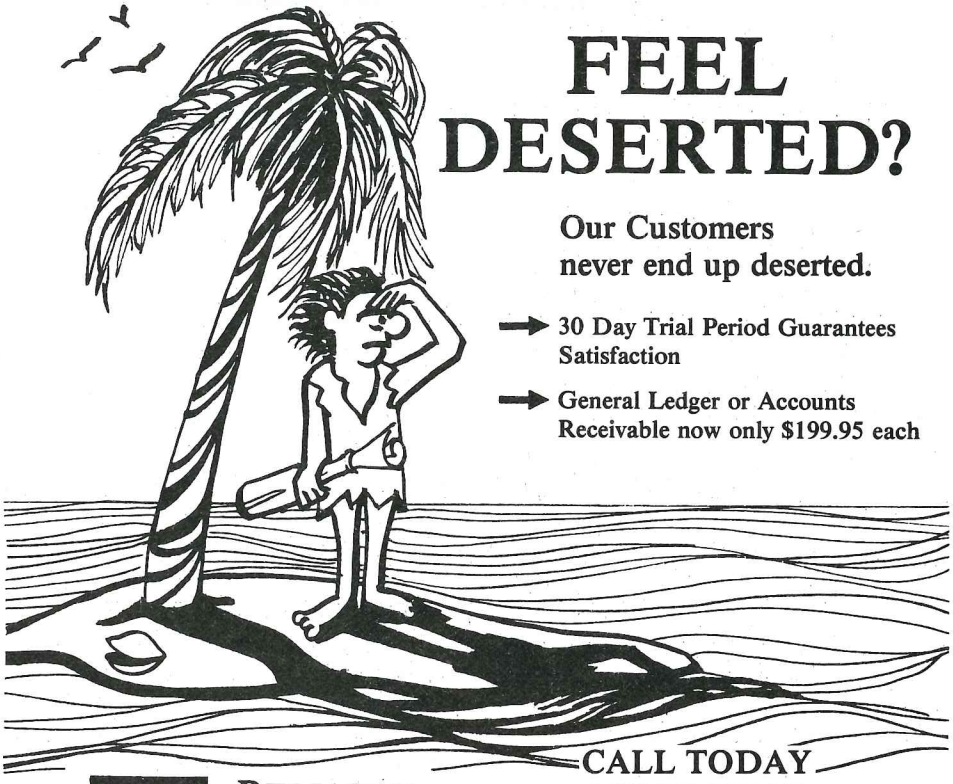
ment will screw things up. (Don't take my word for it, try it on the example.)

BUG: The comma is a little overzealous in its role as a string delimiter. In the example program, you would expect the string printed on the screen to read "End of data, and program." Unfortunately, S-BASIC stops processing each item in a DATA statement as it runs into a comma, and in the example only "End of data" will be printed.

Summary

Even with the detour into DATA statements, you should now have a good feel for the behavior of sequential files. After all, the major difference between the blocks of data used in the two examples is where the data was stored. In both cases the normal operation is starting at the beginning and then grabbing one piece of information after another.

READing from a block of DATA statements does offer one advantage over sequential files: you can move your data pointer around at will. Indeed, if you were to use numeric labels for your DATA statements and keep all your information in records that were one line long, why, you'd be able to move about almost at random. But then, as I've said before, that's a subject for the next installment. □



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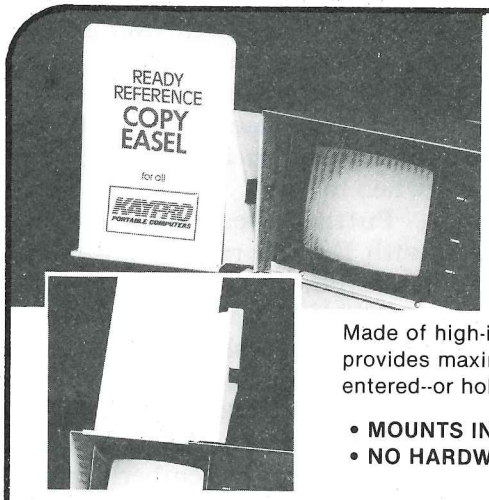

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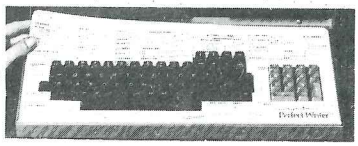

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Technical forum

Conducted by Tyler Sperry

This issue we're going to take a respite from the subject of Perfect software, and deal instead with disks and programming languages. There is, after all, a limit to the space we can justify using for topics like printing documents to the screen. Those who want more information on Perfect Writer should check out Kristin Farry's article on printer configuration.

Welcome aboard

This issue also sees the debut of David Gerrold's column covering hardware, software, etc. Among the *et ceteras,* he mentions some brightly colored diskettes that refused to format, and thereby hangs a tale.

When I first read David's report of difficulties with his red and orange diskettes, my immediate suspicion was the quality of the media. After all, we have all heard of problems with using "off" brands, and it seemed clear that some colors had gotten a bad batch of media or been damaged somehow. The report of the disks working fine with an IBM PC was puzzling, though. I finally consulted my usual source on these confusing technical matters, but the *I Ching* refused comment.

The explanation offered by the company involved—that some drives use infrared LEDs that can shine through the brightly colored (and translucent) jackets—was certainly inventive. Indeed, there have been cases in the past where IR sensors have shone right through a paper write-protect tab and let people zap data on supposedly "safe" disks. Still, the explanation wasn't convincing.

Part of the problem with the explanation is that the disks were failing to *format*, and the write-protect notch should be uncovered for that operation. (Some format programs are more virile than others, and will format a diskette regardless of whether or not you have put a tab over the notch.) A translucent diskette jacket shouldn't be a concern in a format operation.

The other hole in a diskette jacket is used for the index pulse; once per disk revolution a hole in the diskette lines up with this hole in the jacket and tells your Kaypro that a track is beginning. This is used for two purposes. First, since the index sensor is off center, it provides a means of checking that you have inserted your diskette with the proper side up; flip the diskette over and the holes no longer are aligned with the drive's index sensor. Second, the index pulse is used by the format program as a mark to tell when to start.

Putting these facts together with David's report, I was still puzzled. A translucent disk jacket should, at worst, allow you to format a disk either right side up or upside down. The explanation from the company just didn't seem to make sense. Then thinking it over I remembered something I had heard from Jim Nickerson in Kaypro's engineering department, and I decided to try an experiment.

The naked disk

From the logic above, it is clear that a jacket isn't really necessary for the formatting process. This can be verified by taking a diskette, carefully opening the jacket, putting the mylar disk into the your drive, and running the format program. (Actually, considering the cost of diskettes, you might want to just take my word for it.) When I did this, there were a few bad sectors due to the diskette, ah, flopping around, but nothing like the catastrophic failure David had reported. I returned to my original judgement on the infrared story: poppycock. He must have gotten some disks with marginal media that only a tolerant IBM would accept. End of story.

Until COMDEX.

At the April COMDEX, I met and talked with David and his friend Pat Lajko. David had just gotten some more samples of red diskettes, and so we grabbed a machine at the Kaypro booth for another formatting test. No go. And unlike the bad sectors I had expected to see, these disks stopped the format program in its tracks. (So to speak.) Put in a red disk, tell the machine to format it, and nothing. No error reports, no action of any kind.

I had to admit I was stumped. I had proved on my K10 at home that a diskette didn't need a jacket to be formatted, and we had proved on a demonstrator K10 at the show that there was a problem not related to the quality of the media. Hmmm . . .

As this issue goes to press, Pat Lajko has taken some of the orange and red diskettes into the laboratory. I have a terrible record in forecasting the contents for future issues, but I would bet that next issue David will have the solution to this mystery.

Pascal topics

Moving on to languages, but staying in the role of fearless forecaster, I predict that next issue will also include a review of

Turbo Pascal. This $49 product has seemed too good to be true, and we'll see if it measures up to the advertisements.

Pascal was used last issue in an example program in Dave Thompson's column. R. M. Metcalf wrote in to point out an error in the listing. It seems that the example concluded a repeat loop with:

until good_value:=true;

Now, as all good programmers know, a repeat loop should end with a comparison, not an assignment statement. The program as printed will cause problems for compilers until you remove the colon thusly:

until good_value=true;

And, indeed, the better style would be to simply use the Boolean nature of the variable:

until good_value;

All these points are well taken, and it is unfortunate that our Pascal editor was off playing with a new compiler when it came time to proofread Dave's column. As a policy, we try to verify the operation of programs before we print them. (No attempt was made to verify the operation of the fragments in Dave's column because the intent was to show what different languages look like, not to offer a runnable program.)

Along that line of reasoning, we will print corrections as we learn of them. In the case of the example assembly language program a few months back, the correction consisted of letting people know it was OK to ignore an error message from ASM.

Speaking of S-BASIC

One of my favorite ways to forestall requests for debugging aid is to use very small programs. The smaller the program, the easier it is to understand. With that in mind, this column closes with a short program that answers a question from Kent Smith from Garland, Utah. Mr. Smith was curious to find a way of making the cursor stop blinking on his Kaypro 10.

The program below should help those who, like myself, can't stand a blinking cursor. The program works by poking a new value into a cursor register of the 6545 CRT Controller used in the K10 and 1984 versions of the K2 and K4.

```
REM Stop the cursor
REM from blinking

OUT 28, 10
OUT 29, 0
END
```

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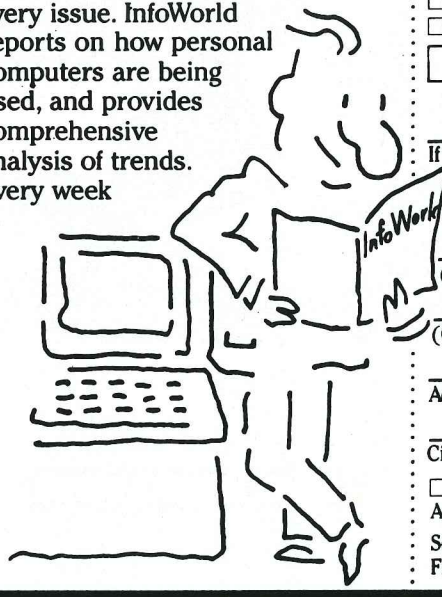

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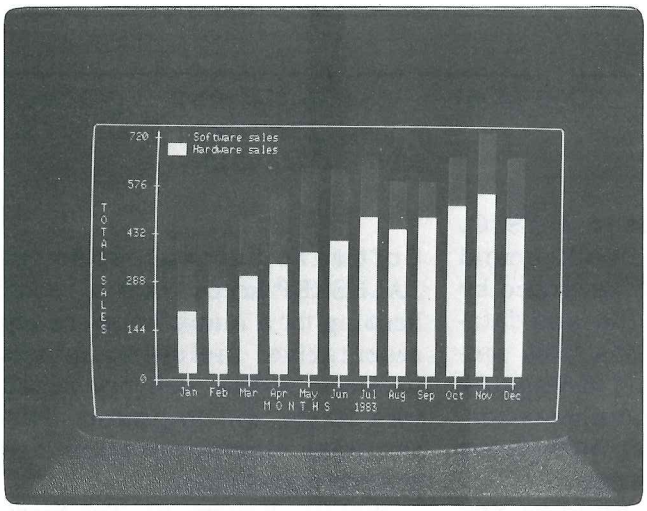

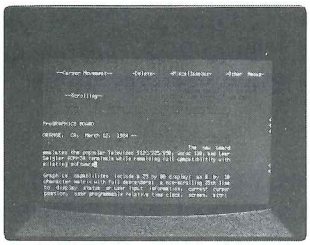

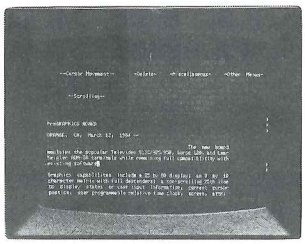

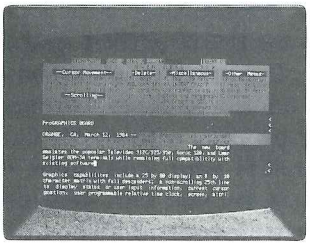

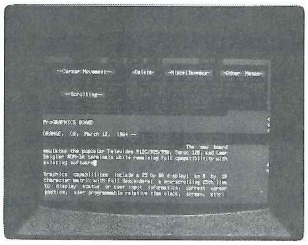

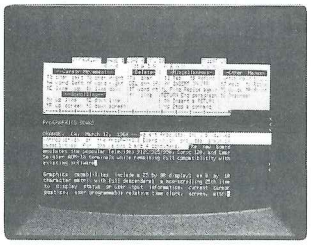

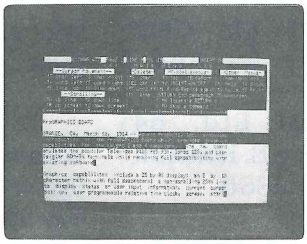

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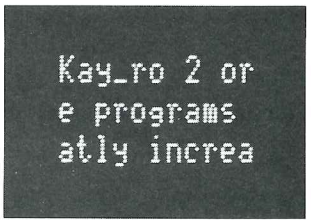

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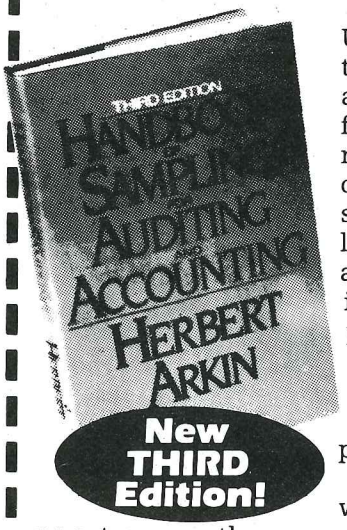

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Supply catalog. Inmac, an independent supplier of computer products, has introduced its new catalog, the Personal Computer Support Catalog, which lists over 2000 items. The free publication offers a 45-day trial period for each product and accepts phone or mail orders. In addition, the full-color, magazine format catalog will be used as a vehicle for a personal computer users' survey.

Inmac, Department 59, 2465 Augustine Dr., Santa Clara, CA 95051 (800) 547-5444 in CA: (800) 547-5447.

BBS information exchange. A free on-line information service for computer owners, the On-Line Computer Telephone Directory BBS Information Exchange (OLCTD-BIE), lists over 600 verified free-access Bulletin Board Systems (BBSs) throughout the U.S. and Canada. The BBS is also a question/answer and discussion forum on telecommunications. The 24-hour number is (913) 649-1207 and it can accommodate 300 and 1200 baud.

J.A. Cambron Co., P.O. Box 10005, Kansas City, MO 64111.

Diskette file. Unlike other models, the Falcon Diskette File has eight separate closed compartments that each holds about ten 5 1/4″ diskettes. This design keeps disks upright to prevent bending and warping, and allows you to get

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Peter McWilliams said, "If you want to find a simple bookkeeping program that is truly quick to learn and use, then Chuck's program is for you." Manage your money and make paying the bills and tax reporting easy.
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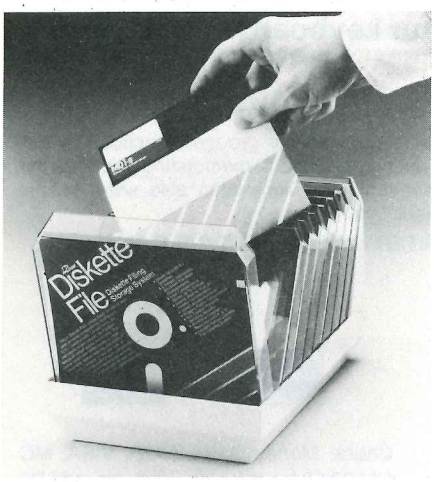
Route 5, Box 277-C • Benbrook, Texas 76126 • (817) 249-0166

a disk without exposing the rest of them to dust and debris. Made of plastic, the file has smoke-colored compartments hinged to a neutral-colored base and comes with labels and computer care booklet.



$24.95. Falcon Safety Products, Inc., Department V, 1065 Bristol Rd., Mountainside, NJ 07092 (201) 233-5000.

Customized printwheels. Diablo, Xerox, C.Itoh and Qume daisywheel printer owners can now replace characters on their printwheel so they can print scientific characters, language symbols, technical symbols, letters, or numbers. Printwheel modifications are guaranteed for the life of the original printwheel.

Write for brochure. Business Support Services, Inc., 705 Butternut Ave., Royal Oak, MI 48073.

Structural analysis software. Designed for professional engineers, Frame80 performs static structural analysis of plane frame and truss-type structures. It lets you apply eight different types of load conditions to a structure, including point and distributed loads, imposed nodal and assembly misfit displacements, and temperature and acceleration conditions. Computed results are nodal displacements, constraint loads, equivalent nodal loads, and element nodal stresses. The user may print the element and/or assembled structure stiffness matrices and the applied force vectors.

$595. Kaypro 2, 4 and 10. EMS Company, P.O. Box 1528, Richland, WA 99352.

Word processing accouterments. Writers can now give their manuscripts that polished look, as well add some printing and formatting features to their word processor, with three new software programs: MagicPrint, MagicBind, and MagicIndex.

Your copy can have a professionally typeset appearance with MagicPrint and a Diablo 630/1650-compatible daisywheel or NEC Spinwriter printer. MagicPrint does proportional spacing to eliminate disproportionate gaps between words, plus over 60 other features, including multicolumn printing, micro-centering, and automatic footnoting (up to 15 per page). Designed to augment CP/M-based word processing programs, MagicPrint also provides the following print formatting functions: boldfacing, underlining, subscript, superscript, indentation and more. $195.

A mailing program similar to MicroPro's MailMerge, MagicBind combines all the print functions of MicroPrint with standard form letter and label production. Unique features include automatic chapter/paragraph numbering and data verification, and generation of sequentially numbered lists. $250.

(continued)

SOFTWARE FOR KAYPRO

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$FINANCE: Personal financial program. Prints checks, posts amount to selected budget catagory, posts debits and deposits, prints check ledger, reconciles and prints reconciliation statement. Similar program for charge cards. Extracts and prints list of expenditures in selected budget catagories. **ONLY $79.00**

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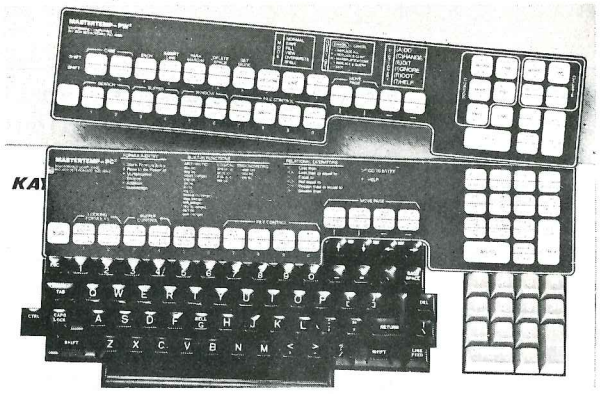

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Enhancements for Perfect Writer versions 1.03 and 1.20

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★ Built-in directory listing.
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★★ Display page number (v1.20).

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Enhancements for the CP/M operating system

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★ 6 user-group utilities included.

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—with definable keys—

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★ Read disk directory
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★ Type and print files
★★ Change printer margins, underlining, etc.
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★★ Every key is redefinable—up to 255 characters
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Also included:
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The Backgrounder — It's like having a second computer!

The Backgrounder is a trademark of Plu*Perfect Systems. An earlier version was called Plu*Perfect Keypad/Helper.

★★ = new features. CP/M 2.2E for the KayPro 10 is in final testing. Write for information.

Perfect Writer, Wordstar and CP/M are registered trademarks of Perfect Software, MicroPro, and Digital Research, respectively.

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_____	K-3	CP/M 2.2E only	$ 23.00
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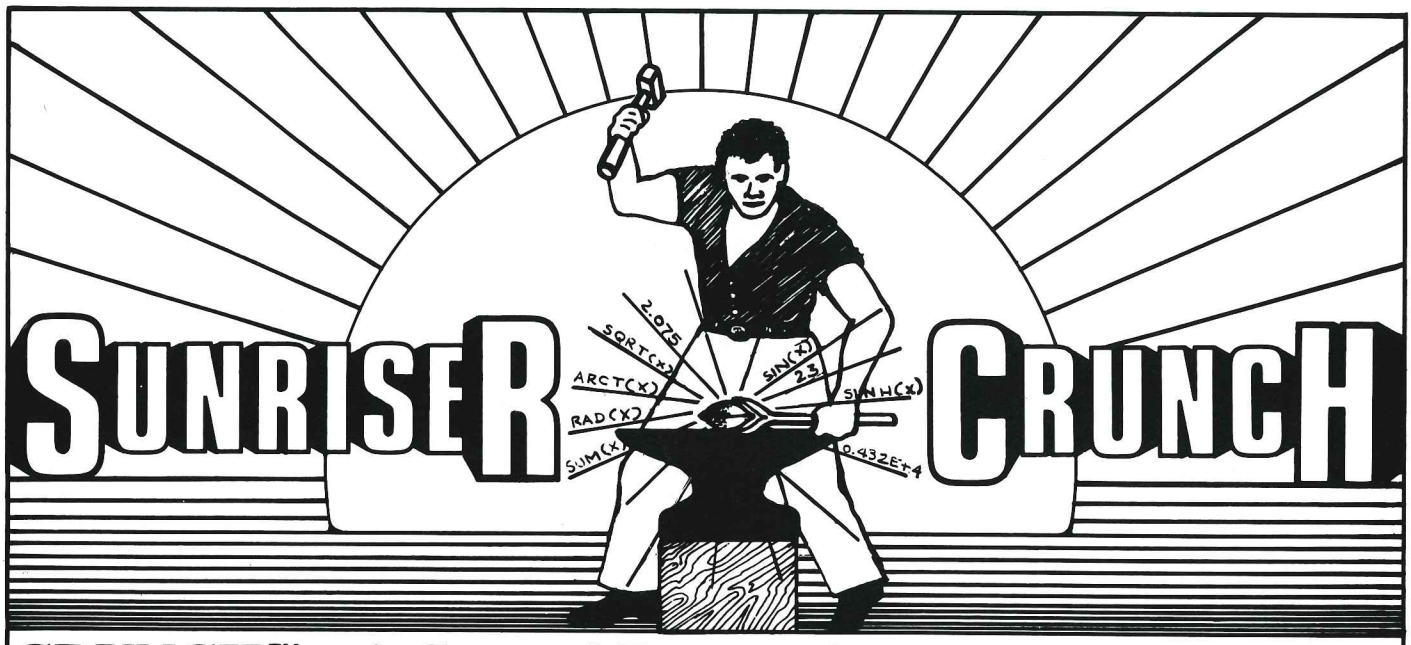
***plu·perfect** adj* : superlative



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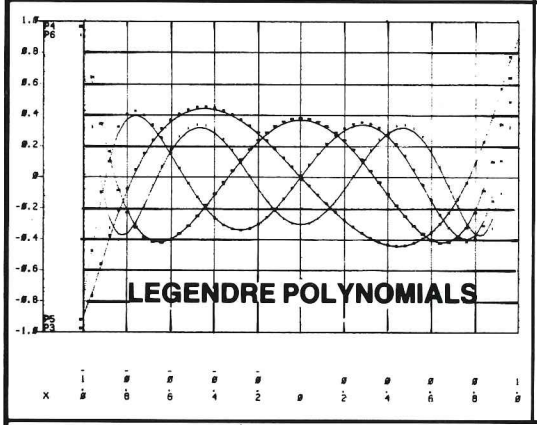
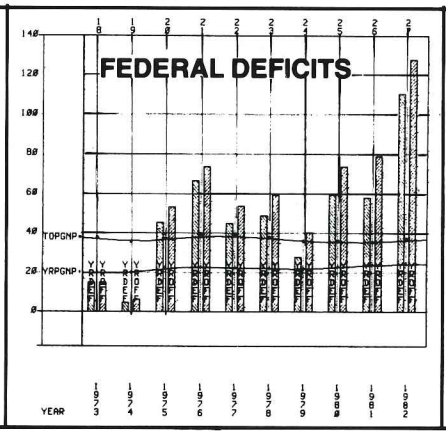
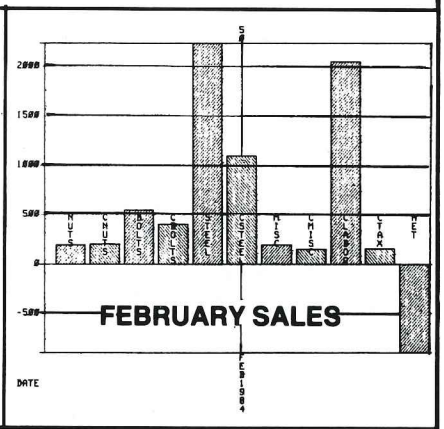
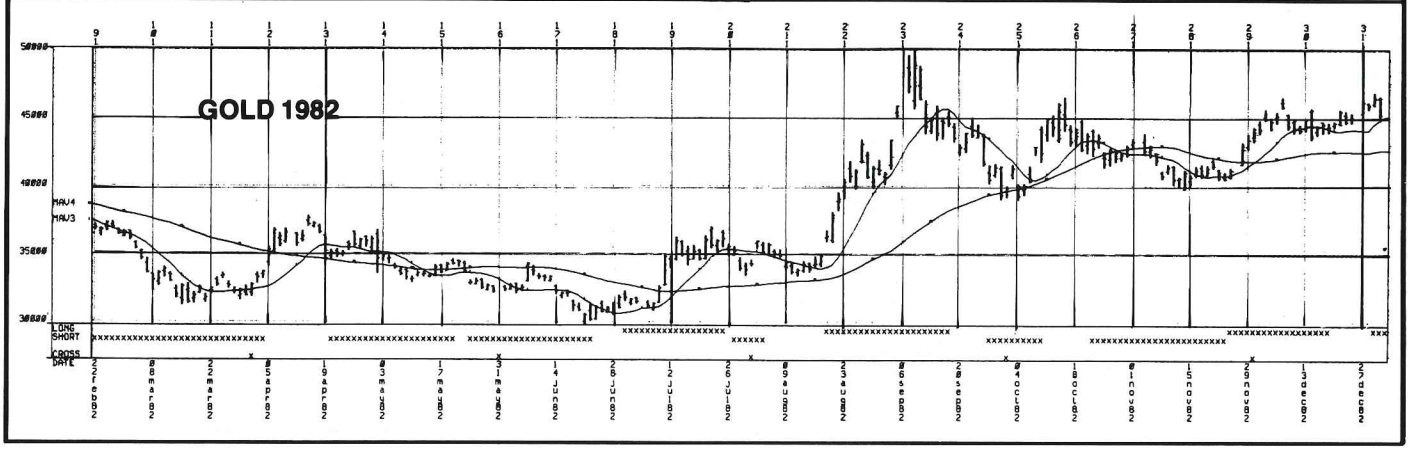








MagicIndex compiles, alphabetically sorts and prints index entries, table of contents, and other lists. Entries of up to 1,000 characters can be marked and printed directly from text as is, or converted to upper or lower case. "See also" and other comments may be added to entries, and a table of contents can be automatically generated when auto-numbering symbols are used for chapters and sections. $150.

Kaypro 2, 4, and 10. Computer EdiType Systems, 500 Cathedral Parkway 10A, New York, NY 10025 (212) 222-8148.

Graphics software. Reportmaker lets you insert graphics into text using WordStar. You can produce pie charts, bar graphs, line graphs and area graphs simply by selecting a format and filling in the blanks. The program will automatically scale axes and titles, and print directly from the screen. Reportmaker also can create logos for page headings on company stationery and other uses. The program works on Epson MX/FX, Star Gemini, and Okidata 92/93 printers.

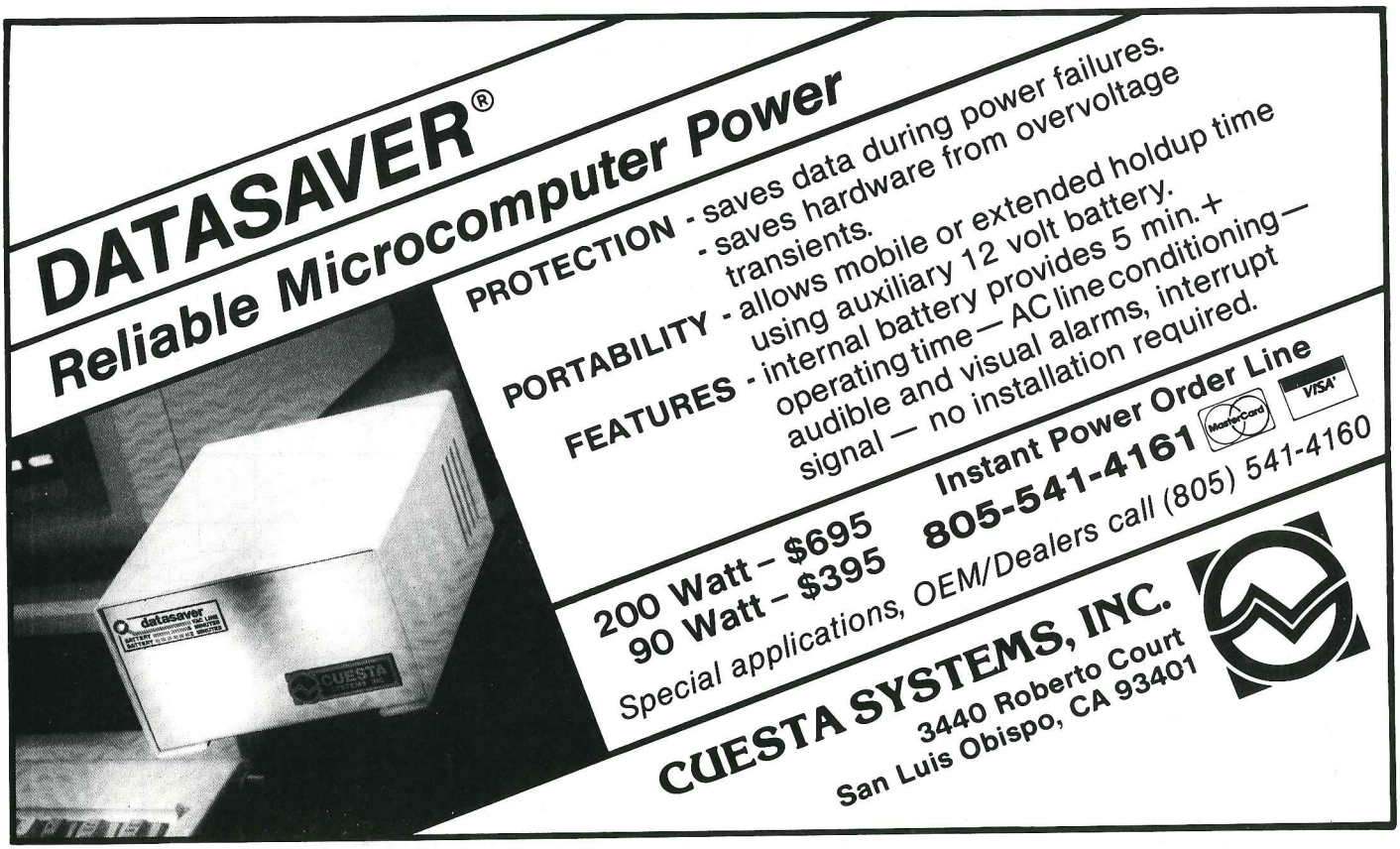
$130. Kaypro 2 and 4. Krepec Software, Inc., 5460 Royalmount, Suite 208, Montreal, Quebec, Canada H4P 1H8 (514) 735-4749.

Knowledge processor. KAMAS, Knowledge And Mind Amplification System, combines a new concept—outline processing—with information retrieval, word processing, telecommunications and optional programming capabilities.

With KAMAS's outline processing, you can organize your ideas in a outline form, in which you can insert, delete and move items. Once entered, KAMAS's information retrieval feature can easily access an idea by key word or string. A full-feature word processor for outline editing and printing is included, along with a structure for a bulletin board system. Although you don't need to know programming to run KAMAS, it provides its own language.

A user can choose to run the program in four levels of complexity. The outer level is menu-driven; the inner levels are programmable and command-driven. The program comes with on-line help messages, a two-volume user manual, and a free subscription to *The KAMAS Report*, an applications newsletter.

$175. Compusophic Systems, 2525 S.W. 224th Ave., Aloha, OR 97006 (503) 649-3765. □



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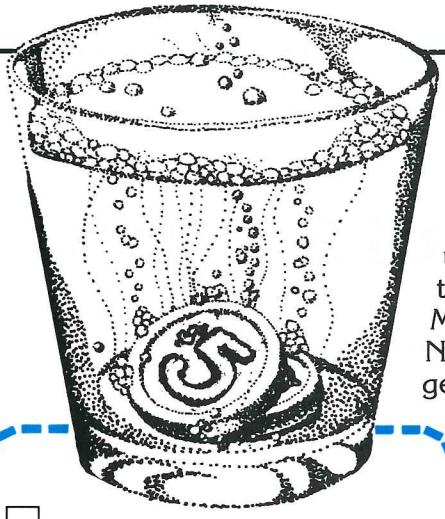

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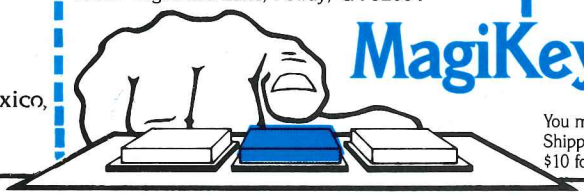

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Users' groups

by Clifford Odendhal

The Kaypro users' groups were, for the most part, formed independently for the sole purpose of mutual support and information exchange among the owners and operators of Kaypro computers. While some were formed as a part of a dealership and are dependent on these dealers for a variety of things, from meeting rooms to training, the general tone of the system is the independent group of users who work with only member support and interdependence.

Kaypro wishes to encourage this direction and tone. Kaypro encourages the non-profit status of all Kaypro users' groups. In addition, we intend to be very cautious concerning the amount and type of support, and the connection the Kaypro main office has with the KUG network.

For this reason, Kaypro is opposed to any financial support of programs and business of the individual groups. Equipment donations are also a problem in this respect. Kaypro feels that any financial connection of this sort can all too easily lead to a sense of dependence on the home office.

Our ongoing support of the groups will continue to include the InfoMail mailings of data concerning software fixes, hardware updates, and general information useful to or of interest to Kaypro users. Promotional items will continue to be sent to KUGs in order to increase the spirit of camaraderie so encouragingly present in most of the groups I have visited.

As KUG manager for Kaypro, my major project this year is to travel about the country speaking to users' groups and getting to know members of the groups and the unique problems they may have in their area. I am also grooming several others to speak to the KUGs on a wide range of subjects, from corporate policy to hardware diagnosis.

Over the past two years, you, the members of the Kaypro users' groups, have become a powerful and cohesive force in the computer marketplace. Kaypro would like to express its appreciation for the invaluable word-of-mouth endorsements of our equipment by our user base. It is extremely gratifying to hear of the admiration and loyalty felt toward our machines by the people who use them.

Keep up the good work and KUG your Kaypro today! □

Kaypro users' groups have no official relationship with Kaypro Corporation. Therefore, we can take no responsibility for the accuracy of the information in the list below, nor for the activities of the groups themselves. For further information, you can contact the group in the list nearest you or write to:

Clifford Odendhal,
KUG Manager
533 Stevens Ave.
Solana Beach, CA 92075

ALASKA

ANKOR
1705 Bartlett Dr.
Anchorage, AK 99507

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YAVAKUG
P.O. Box 68
Kirkland, AZ 86332

AZKUG
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Phoenix, AZ 85044

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P.O. Box 12083
Tuscon, AZ 85732

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Anaheim, CA 92802

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546 Douglas St.
Chula Vista, CA 92010

Sacramento KUG
7001 Brookcrest Way
Citrus Heights, CA 95621

KUG—N. San Gabriel Valley
1416 N. Indian Hill Blvd.
Clairemont, CA 91711

ETKUG
24601 Raymond Way
El Toro, CA 92630

FULLKUG
3241 Topaz Ln.
Fullerton, CA 92631

LAKUG
3133 Corinth Ave.
Los Angeles, CA 90066

UCLA/USC KUG
Richard Baum
Political Science Dept., UCLA
Los Angeles, CA 90024

K-WEST
1924 Beryl Lane
Newport Beach, CA 92660

BAK-UP
P.O. Box 20181
Oakland, CA 94620

KSIG
N. Orange County Computer Club
P.O. Box 3616
Orange, CA 92665

BAD SECTOR
3515 Sacramento
San Francisco, CA 94118

COLAVKUG
1105 Coleman Ave. MD 750
San Jose, CA 95108

SCKUG
1005 Cedar St.
Santa Cruz, CA 95060

SRKUG
4772 Sunshine Ave.
Santa Rosa, CA 95405

KSIG
San Diego Computer Society
9235 Lake Hill Rd.
Santee, CA 92071

NOCOKUG
616 Stevens Ave.
Solana Beach, CA 92075

San Fernando Valley KUG
18639 Ventura Blvd.
Tarzana, CA 91356

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P.O. Box 323
Tehachapi, CA 93561

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2839 Pacific Coast Hwy.
Torrance, CA 90505

Ventura County KUG
1956 Pelican Ave.
Ventura, CA 93003

N. San Diego County KUG
171 Unity Way
Vista, CA 92083

S. San Gabriel Valley KUG
P.O. Box 9253
Whittier, CA 90608

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Kaypro User's Association of Fort Collins

(continued)

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* So you have easy access to all your printer's capabilities from inside of WordStar.
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* Helps you save your sanity from trying to figure out how to patch WordStar yourself or from magazine articles.

Printerizers go far beyond those magazine patches, using an installer that is VERY easy to run. They add from 0 to 5K to WS.COM, depending on the printer selected. The specifics of what will be gained vary from printer to printer, but they all have the same goal in common:

"Give the user easy access to every useful capability of his printer."

Some Printerizations (notably Epson and Gemini) require HexPrintR to access some of the printer's less frequently used options. Call or write (specifying your printer) for details.

HexPrintR™ changes the WordStar printer control character ^R into a "Hex-Printer" function. For example:

^R 10, 15, 20 ^R

in a file printed by WordStar with HexPrintR installed into it would send the same thing to the printer as the BASIC program statement:

LPRINT CHR$(10) ; CHR$(15) ; CHR$(20) ;

(Not recommended for daisy wheel printers)

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☐ Gemini 10(X) or 15(X)
☐ IDS Prism / Microprism ☐ Okidata 82A / 83A
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Prices include U.S. or Canadian First Class mail delivery. California residents add 6% sales tax. Overseas orders pay in US funds adding $4 shipping. Payment may be by money order, check, Visa or Mastercard. UPS COD add $4, 2nd day UPS COD add $6. Please include phone number with order. Both Printerizers and HexPrintR work with versions 2.26, 3.0 and 3.3 of WordStar under CP/M and CP/M Plus.

Trademarks: HexPrintR and Printerizer, C I Software; Prowriter, C. Itoh Electronics; WordStar, MicroPro Corporation; Graphtrax, Epson America.

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If you don't have the luck to own a Kaypro, you can still subscribe (use the lower form). Or you can pick up a copy at any authorized Kaypro dealer. Call 800-447-4700 for the dealer nearest you.

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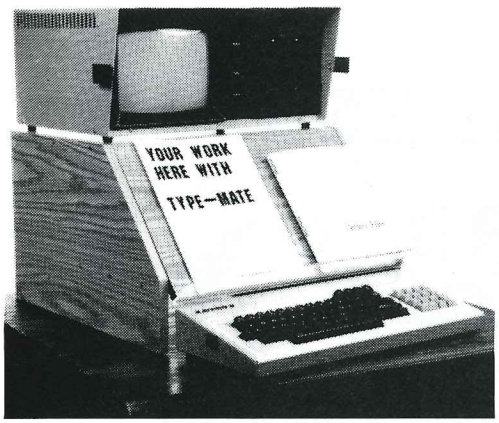

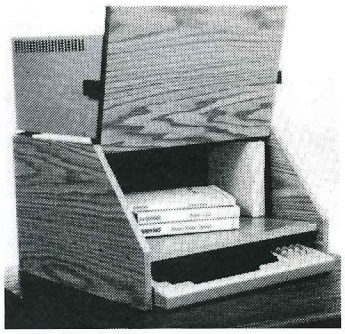

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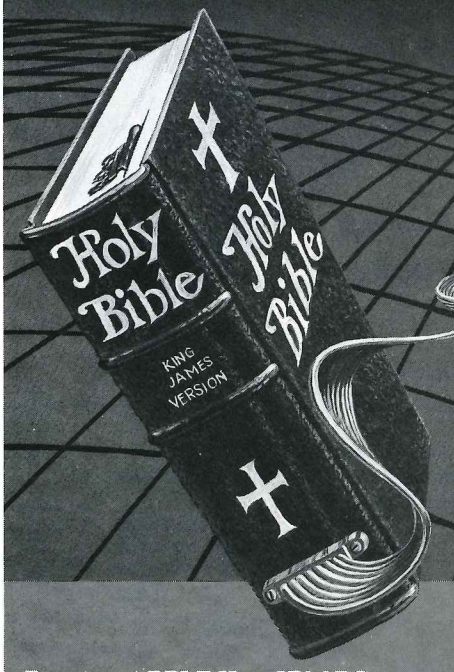

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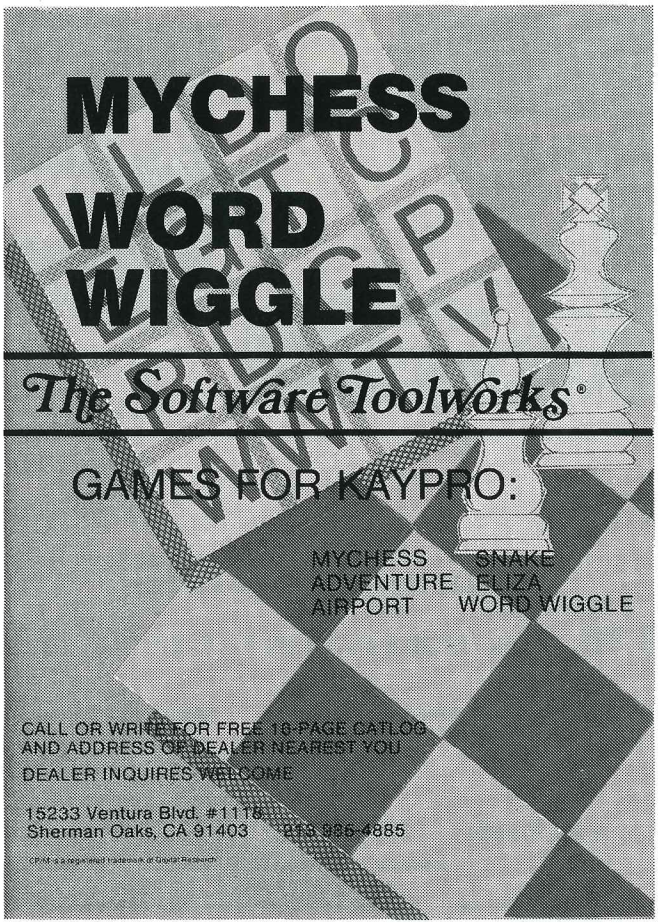

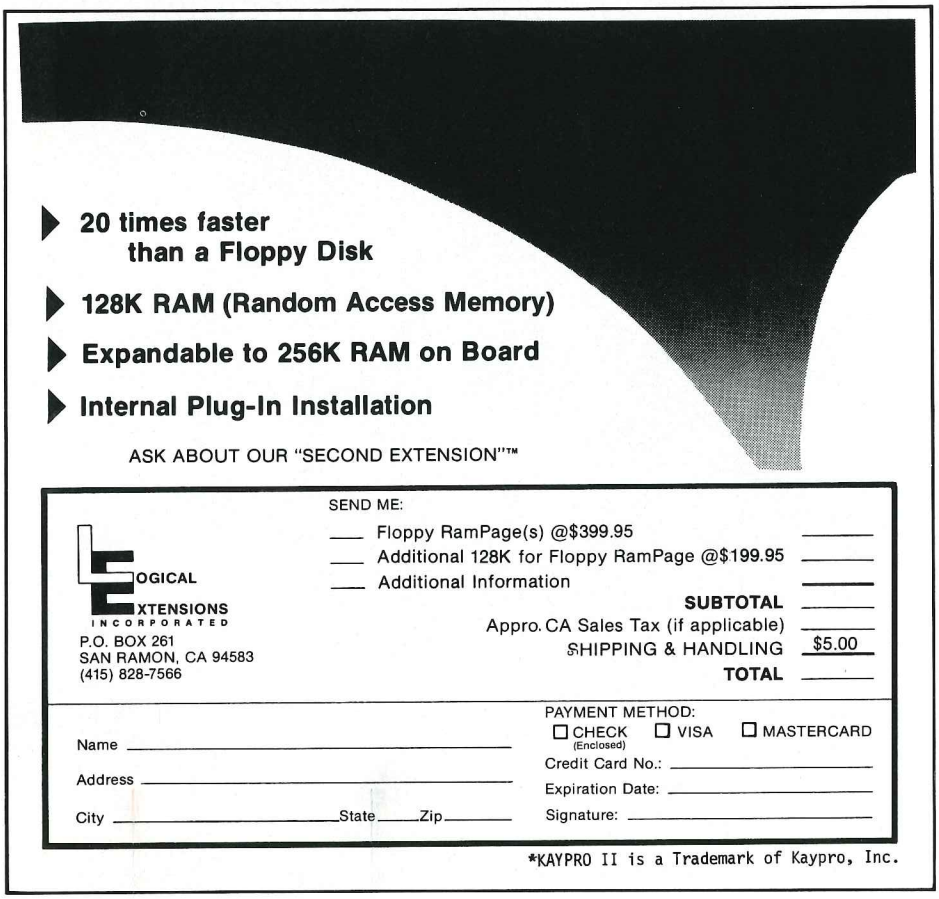

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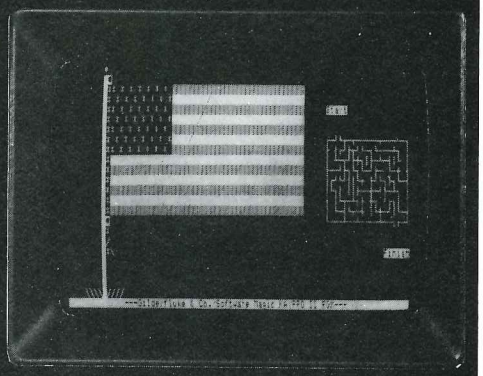

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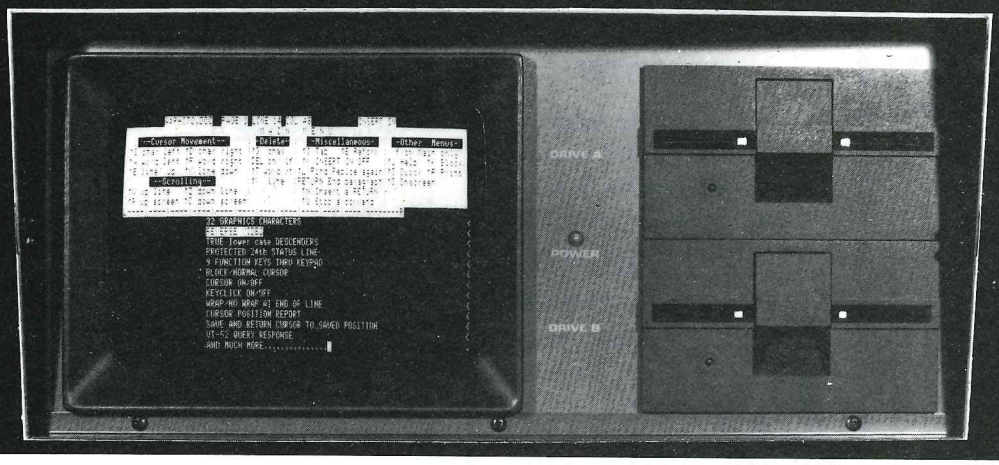

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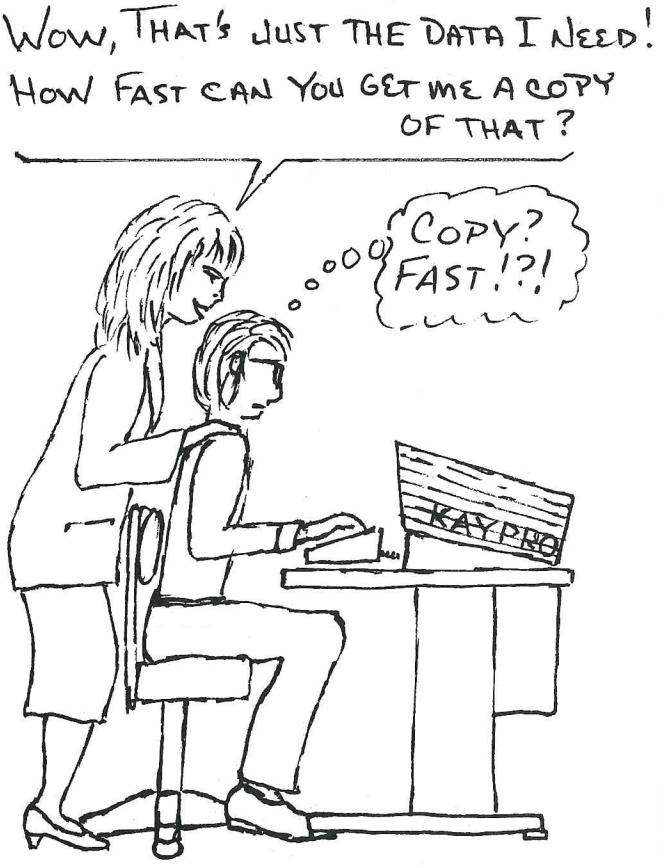

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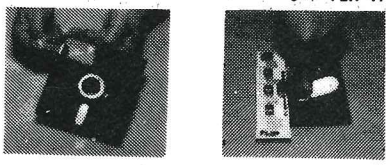

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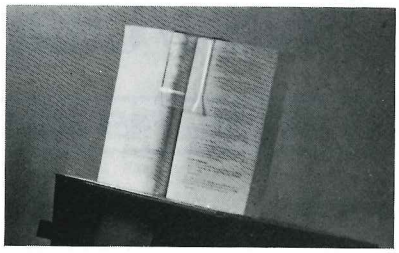

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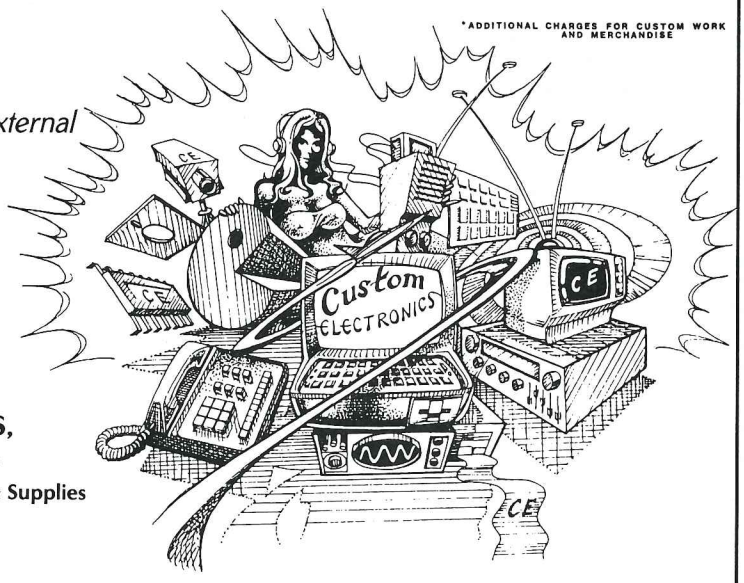

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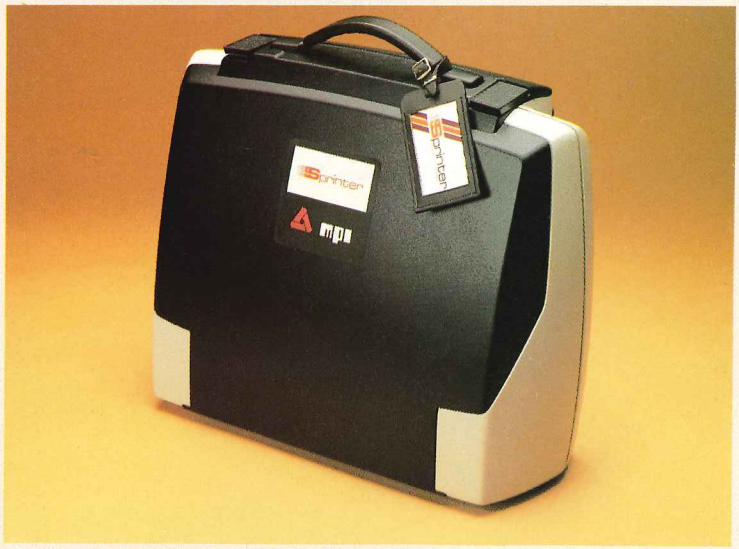

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